

# Parts Catalog Atlas

**Models:** Gasoline, Lpg & Diesel



## PREFACE

Thank you for your purchase of the now industry standard for sweepers. PowerBoss takes great pride in offering the most dependable, reliable and best value in industrial power sweepers and sweeper / scrubbers. We set the standard.

Our Publishing Department would like to hear from you. If you see any errors, omissions or something that needs clarification in this Spare Parts Catalog please let us know. We are working hard toward perfection in our corner of the process to bring you the best you can buy. Please copy the form below, fill out and comment on how you found our catalog.

Thank you.

\*Name \_\_\_\_\_

\*Title: \_\_\_\_\_

\*Company Name: \_\_\_\_\_

\*Address: \_\_\_\_\_

\*Country: \_\_\_\_\_

Type of equipment or model number: \_\_\_\_\_

Comments:

\*Information is optional.

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(910) 944-2105 Local

E-Mail - techsupport@powerboss.com

This is the Spare Parts Catalog for the PowerBoss Atlas Sweeper.

This catalog covers all Standard Atlas machine variations beginning February 2011.

We believe this machine will provide excellent service for many years.

However, the best results will be obtained if:

- The machine is operated with reasonable care.
- The machine is maintained regularly per the maintenance schedule provided in the User Manual.
- The machine is maintained with PowerBoss Inc. supplied or equivalent parts.

All right side and left side references to the machine (except for engine) are determined by facing the direction of forward travel. The front of the engine or engine fan faces the rear of the machine. Some hardware considered to be common or locally available has been omitted from the parts section to make this manual clear. Be sure to use equivalent hardware when replacement becomes necessary.

The Model and Serial Number of your machine is shown on the I.D. name plate. This information is needed when contacting Technical Support or when ordering parts. The I.D. plate is mounted on the console of the machine left of the operator. Adjacent the main broom adjustment access door.

**Example I.D Plate;**

<b>PowerBoss</b>		175 Anderson St.	
		Aberdeen, NC 28315	
		Made in USA	
		IP X3	
CE	Model No.:		
	Serial No.:		
	Machine Weight (kg):	KW:	Year:
	Front Wheel Weight (kg):	Rear Wheel Weight (kg):	

Parts may be ordered by phone, fax or e-mail from any PowerBoss parts and service center. Before ordering parts or supplies, be sure to have your machine model number and serial number handy. For your convenience Fill out the data block below for future reference.

<b>MACHINE DATA</b> Fill out at installation	
Serial Number:	_____
Engine Serial Number:	_____
Sales Rep.:	_____
Date of Install:	_____

**\*Note\*** Where No Part Number Is Listed In The Right Column Part Number Is The Same As The Left Column

All information contained in this catalog is current at the time of printing However, PowerBoss reserves the right to make changes at any time without notice.

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## TECHNICAL SPECIFICATIONS

Model Atlas Sweeper

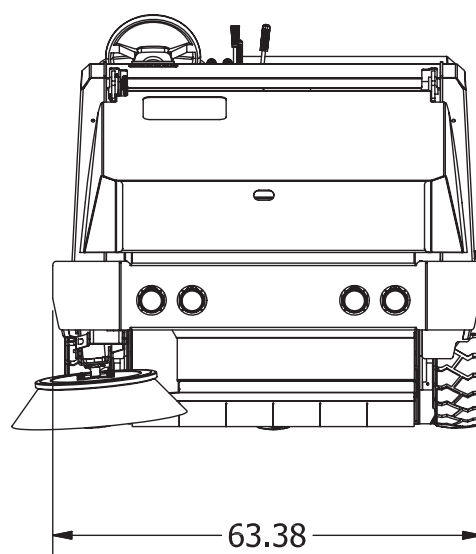
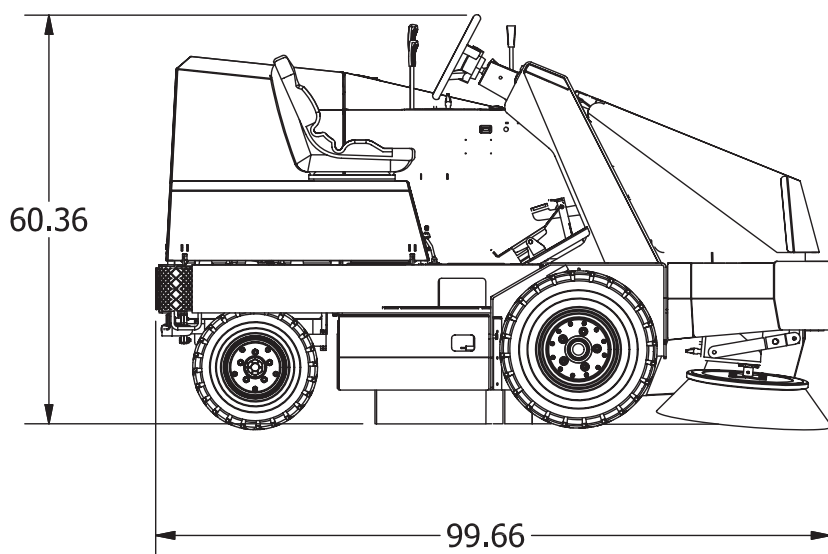
Model No. PB620DSL, PB620LP, PB620GAS, PB620DSL-DSB, PB620LP-DSB, PB620GAS-DSB

### GENERAL MACHINE SPECIFICATIONS

Length: . . . . .99.75 in  
Width without side broom . . . . .63.38 in  
Rear frame width: . . . . .60.00 in  
Height to steering wheel . . . . .60.38 in  
Height w/ overhead guard . . . . .82.25 in  
Height wo/ overhead guard . . . . .60.50 in  
Wheelbase: . . . . .47.75 in  
Aisle width U-turn: . . . . .10.0 ft (120 in)  
(contact clearance = 113 in)  
Empty vehicle weight . . . . .3500 lbs  
Gross vehicle weight . . . . .4700 lbs  
Sound level target: . . . . .83 dBa  
Maximum forward speed: . . . . .9.8 mph  
Maximum reverse speed: . . . . .3 mph  
Maximum climb angle  
empty hopper: . . . . .14 degrees  
Maximum climb angle

### SWEEPING SYSTEM

productivity . . . . .  
Main broom diameter: . . . . .14.0 in  
Main broom length: . . . . .48.0 in  
Side broom diameter: . . . . .26.0 in  
Sweeping path  
w/ side broom . . . . .62.75 in  
Optimum main broom  
pattern width: . . . . .2.0 in – 2.5 in  
Hopper weight capacity: . . . . .1200 lbs.  
Hopper volumetric capacity  
(less filter box): . . . . .16.0 cu ft  
Hopper dump height: . . . . .to clear 60 in  
. . . . .(approx 62 in)  
Min. ceiling height  
for 60" hopper dump: . . . . .8 ft – 6 in  
Filter type: . . . . .Treated synthetic  
panel filter  
Filter area: . . . . .95 sq ft



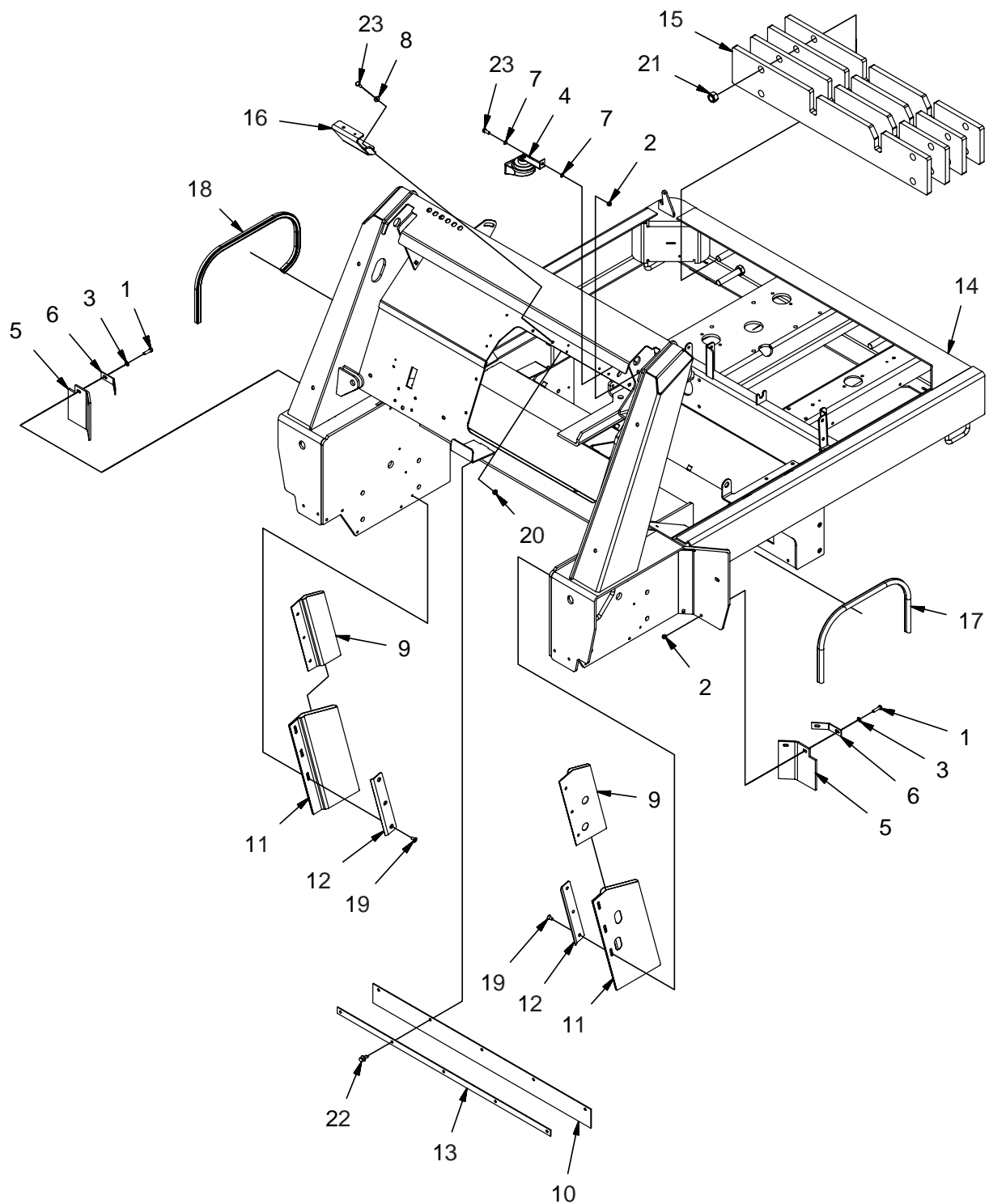
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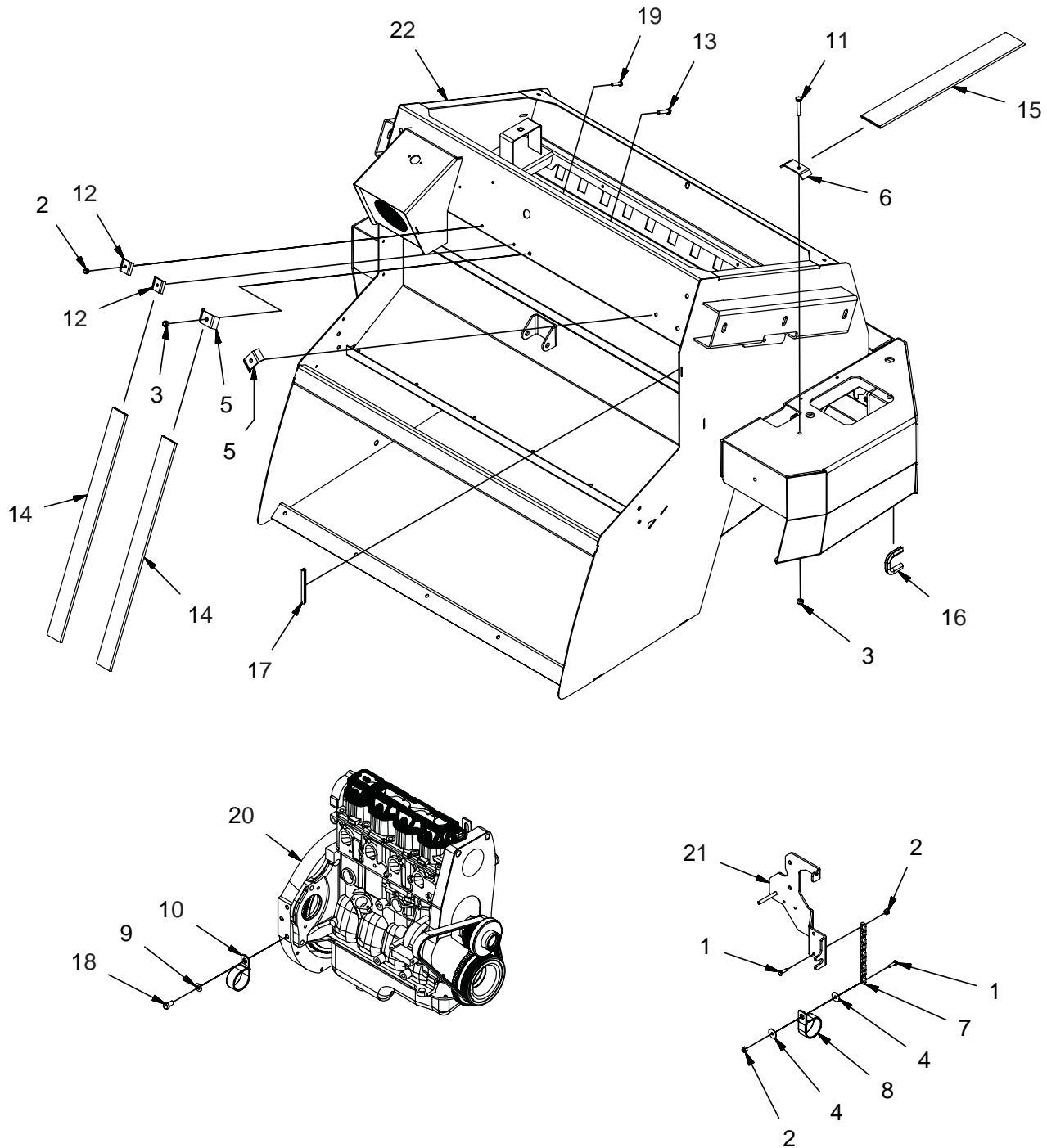
**FRAME ASSEMBLY - FRAME, SKIRTS, SEALS, RETAINERS, AND COUNTER WEIGHTS**





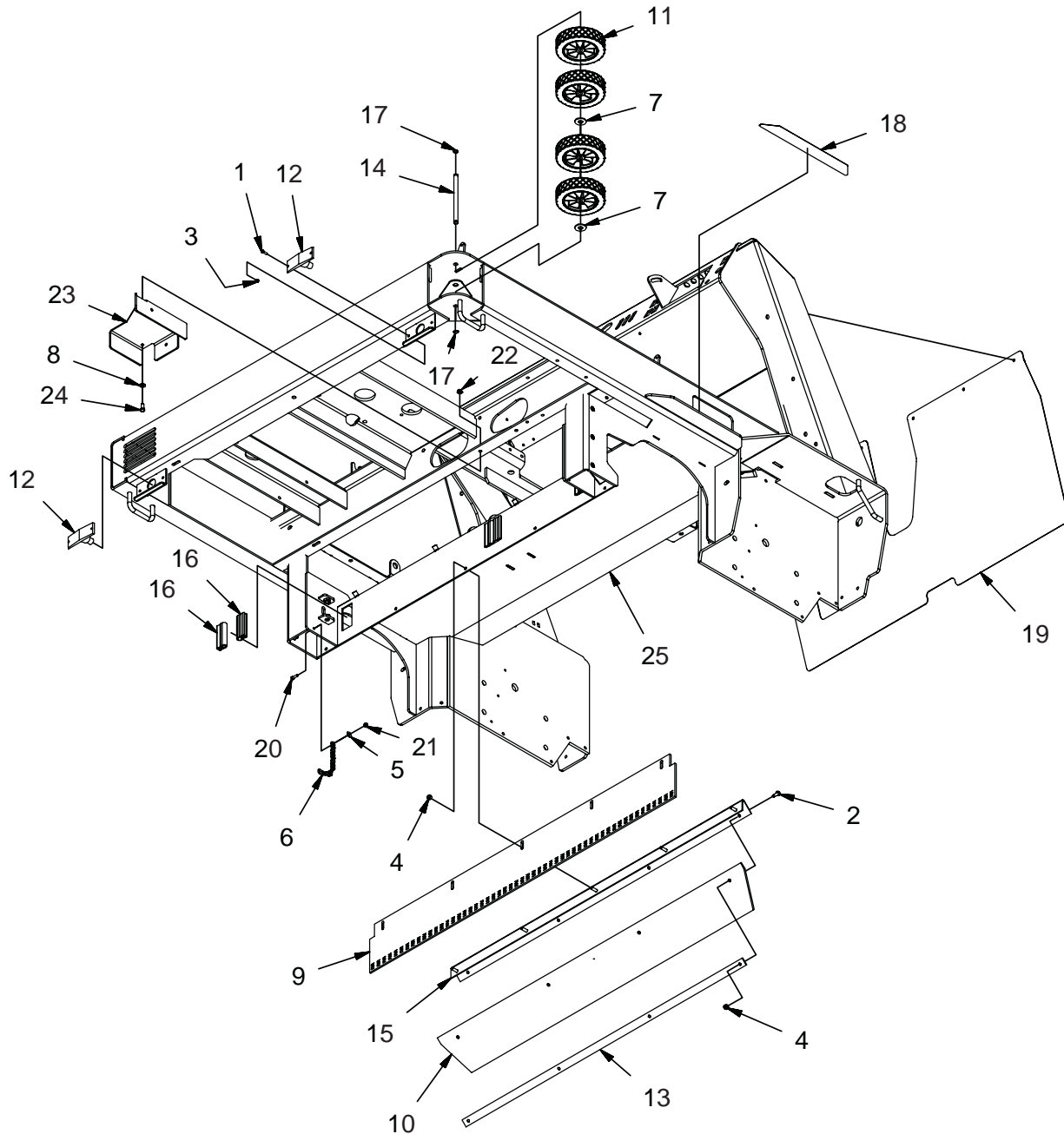
Parts List			
ITEM	PART NUMBER	QTY	DESCRIPTION
1	11038254	4	BOLT, M8-125 X 30 HH
2	12040259	5	NUT, M8-1.25 ESN SS
3	12310041	4	WASHER, M8
4	3300379	1	HORN, 12V
5	3307286	2	FLAP, BROOM CHAMBER CORNER
6	3307287	2	STRAP, BROOM CORNER FLAP
7	3400273	2	WASHER, STAR, .31, INT. ZP
8	3400384	2	WASHER, 5/16 BELLEVILLE
9	600221	2	SKIRT, SUPPORT
10	600222	1	SKIRT, MB CHAMBER TOP
11	600223	2	SKIRT, WHEEL WELL
12	600251	2	RETAINER, WHEEL WELL SKIRT
13	600288	1	RETAINER, BC TOP SEAL
14	600412-1	1	WELDMENT, FRAME
15	600511	4	COUNTERWEIGHT
16	600821	1	CHANNEL, CLAMP STAND
17	600901	1	SEAL, BROOM DOOR, LH
18	600902	1	SEAL, BROOM DOOR, RH
19	600916	6	SCREW, M8-1.25 X 16 FHMS SS
20	600934	2	NUT, M8-1.25 FLNG
21	600935	4	NUT, M20-2.50 ESN
22	600965	5	FASTENER, PRESS-IN
23	717024	3	BOLT, M8-1.25 X 20 HH

**FRAME ASSEMBLY - HOSE SUPPORT**



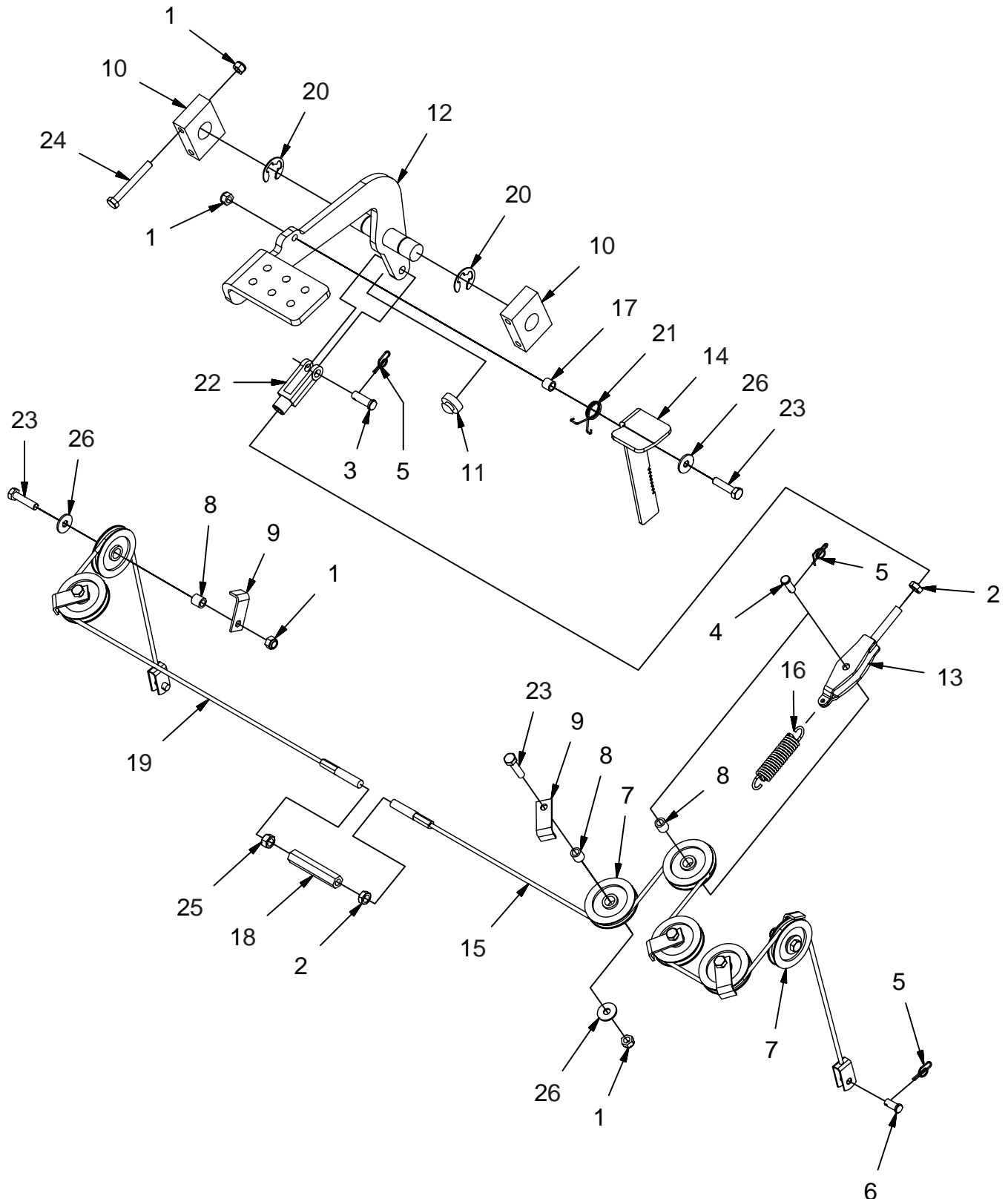
Parts List			
ITEM	PART NUMBER	QTY	DESCRIPTION
1	11038098	2	BOLT, M6-100 X 20 HH
2	12040044	4	NUT, M6-1.00 ESN
3	12040051	3	NUT, M8-1.25 ESN
4	12347027	2	WASHER, M6 FENDER
5	3301437	2	RETAINER, HOSE, SYM, 8
6	3305398	1	RETAINER, HOSE, OFFSET, 8
7	3307658	1	CHAIN, GROUND
8	3343539	1	CLAMP, 2"
9	3400385	1	WASHER, 3/8. BELLEVILLE
10	3402005	1	CLAMP, 2"
11	600820	1	BOLT, M8-1.25 X 45 HH
12	600822	2	RETAINER, HOSE, SYM, 6
13	600918	2	BOLT, M8-125 X 35 HH
14	620041	2	SLEEVE, AS-B-17 X 24.5"
15	620042	1	SLEEVE, AS-B-27 X 20.0"
16	620046	1	EDGING, 3/16 X 4.75"
17	620120	1	EDGING, 4"
18	713041	1	SCREW, 3/8-16 X .750 HHC
19	717021	2	BOLT, M6-100 X 30 HH
20	REF	-	ENGINE
21	REF	-	CAM MOUNT
22	REF	-	HOPPER

**FRAME ASSEMBLY - SKIRTS, ROLLERS, SHIELD, AND HOSE SUPPORT**



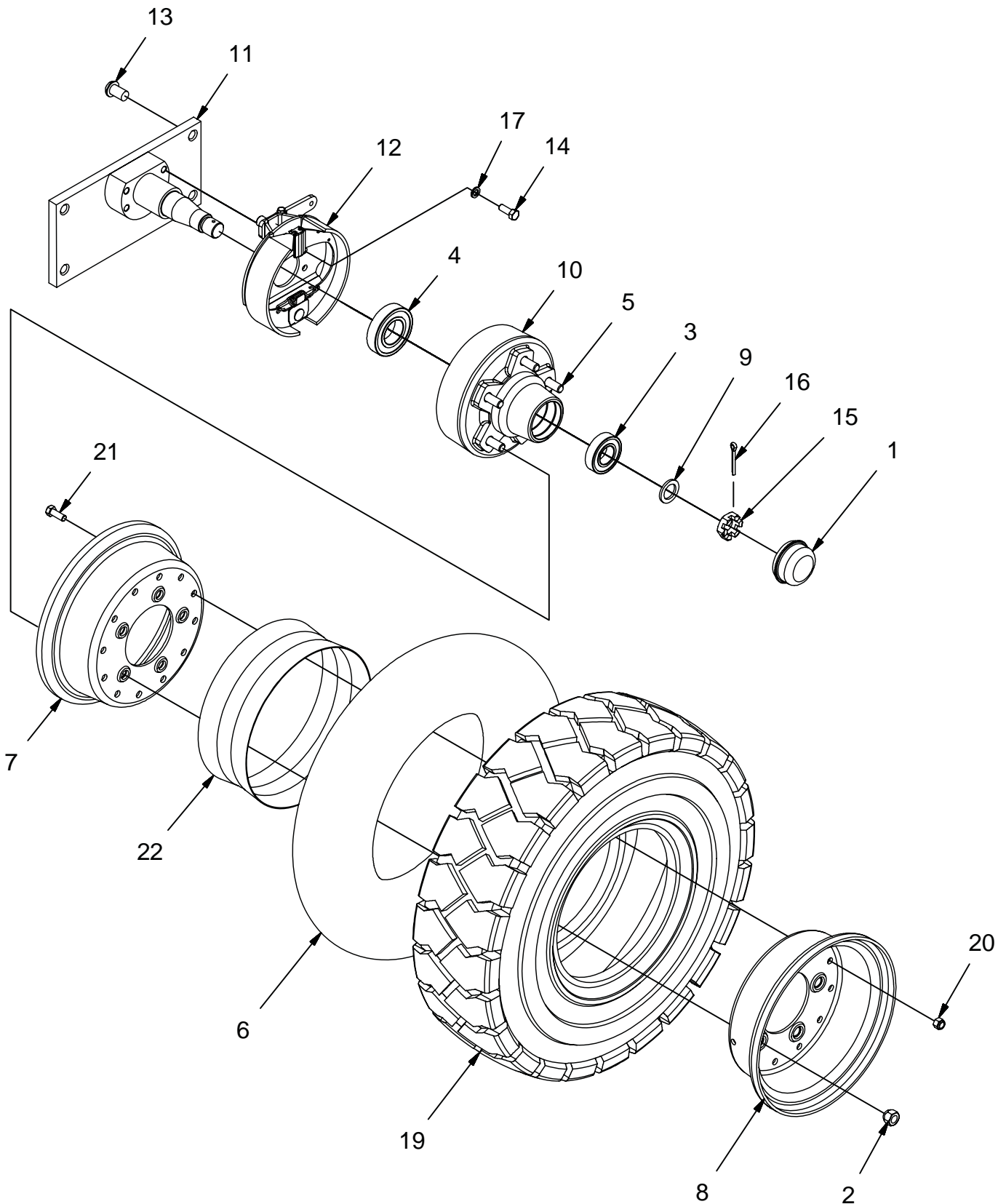
Parts List			
ITEM	PART NUMBER	QTY	DESCRIPTION
1	11038049	4	BOLT, M5-0.8 X 16 HHB
2	11039567	4	BOLT, M8-125 X 25 HH SS
3	12040036	4	NUT, M5 - 0.8 ESN
4	12040259	9	NUT, M8-1.25 ESN SS
5	12332011	1	WASHER, FENDER, M6
6	3307658	1	CHAIN, GROUND
7	3400086	2	WASHER, 1/2, 1.063 X .531 X .094
8	3400384	2	WASHER, 5/16 BELLEVILLE
9	600224	1	SKIRT, REAR
10	600225	1	SKIRT, RECIRC
11	600258	4	TIRE, 6 X 1.5
12	600514-1	2	ASSEMBLY, TAIL LIGHT
13	600515	1	STRAP, RECIRCULATING FLAP
14	600516	1	SHAFT, ROLLER
15	600517	1	WELDMENT, REAR SKIRT RETAINER
16	600565	6	SEAL, MB ARM
17	600569	2	RETAINING RING, EXT .50 HD
18	600814	1	PAD, STEP
19	600816	1	SHIELD, RUBBER
20	600913	1	BOLT, M6-100 X 20 HH SS
21	600933	1	NUT, M6-1.00 ESN SS
22	600934	2	NUT, M8-1.25 FLNG
23	600999	1	SUPPORT, WM HOSE
24	717024	2	BOLT, M8-1.25 X 20 HH
25	REF.	-	WELDMENT, FRAME

**BRAKE ASSEMBLY**



Parts List			
ITEM	PART NUMBER	QTY	DESCRIPTION
1	12040051	11	NUT, M8-1.25 ESN
2	3400075	2	NUT, HEX JAM 3/8-24
3	3400117	1	PIN, CLEVIS 3/8 X 1.125
4	3400118	1	PIN, CLEVIS, .313 X .88
5	3400125	4	RUE-RING, .375
6	450034	2	PIN, CLEVIS, .313 X .75
7	600113	7	PULLEY, .50 B, 2.00 D, .44 T
8	600114	7	SPACER, .328 B .498 OD .500 T
9	600115	6	RETAINER, CABLE
10	600116	2	BLOCK, BRAKE PIVOT
11	600117	1	BUMPER, 1.00 X .339 T
12	600118	1	WELDMENT, BRAKE PEDAL
13	600121	1	CLEVIS, BRAKE PULLEY
14	600124	1	PEDAL, PARKING BRAKE
15	600126	1	CABLE, BRAKE, RH
16	600127	1	SPRING, EXT, .105 W .75 OD 3.50 L
17	600315	1	SPACER, .344 B .485 OD .425 T
18	600338	1	TURNBUCKLE, .375
19	600339	1	CABLE, BRAKE, LH
20	600570	2	E-RING, .88
21	600809	1	SPRING, TORSION
22	600813	1	CLEVIS, 3/8-24
23	600918	7	BOLT, M8-125 X 35 HH
24	600921	4	BOLT, M8-1.25 X 65 HH
25	600938	1	NUT, 3/8-24 LH
26	600940	7	WASHER, M8 FENDER

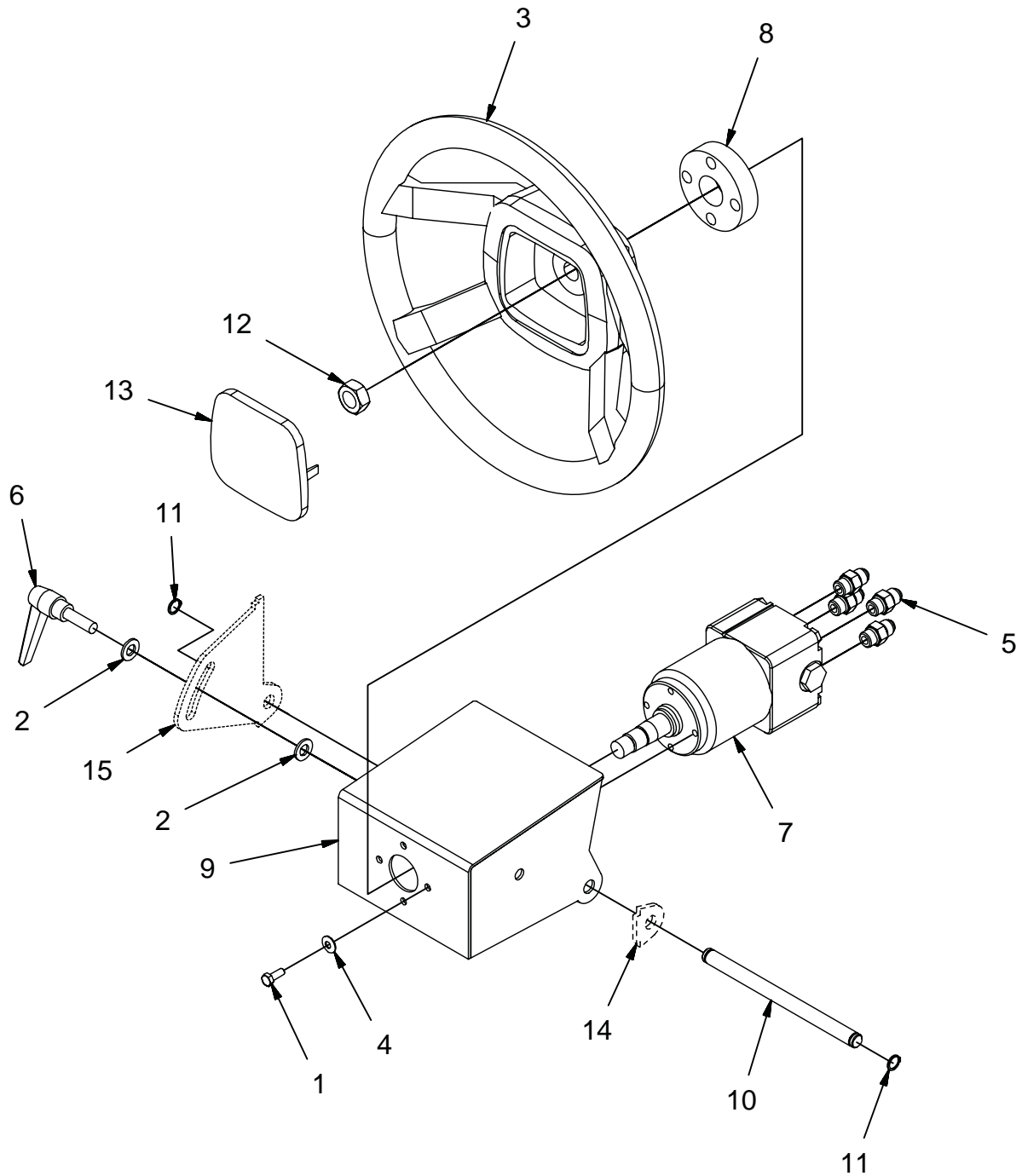
FRONT AXLE AND WHEEL





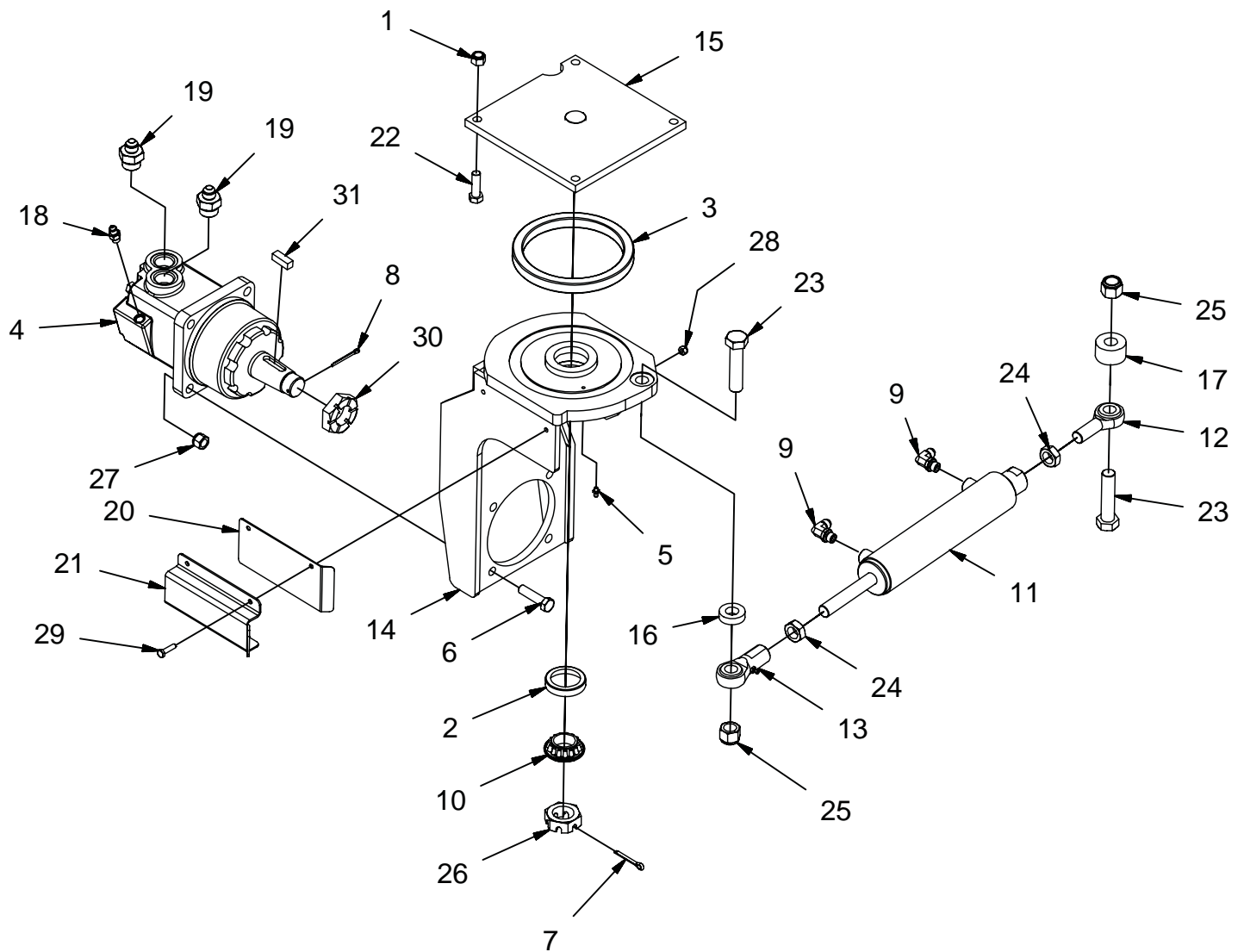
Parts List			
ITEM	PART NUMBER	QTY	DESCRIPTION
1	3300369	2	GREASE CAP
2	3300411	10	NUT, LUG
3	3300467	2	BEARING, BALL, 6206-2RS
4	3307238	2	BEARING, BALL, 6208-2RS
5	3307242	10	STUD, WHEEL
6	3307253	2	TUBE 650-10
7	3307254-W	2	RIM, FRONT INNER, SW/A PNTD WHITE
8	3307255-W	2	RIM, FRONT OUTER, SW/A PNTD WHITE
9	3307352	2	WASHER
10	3318288	2	HUB, MACHINED
11	3334058	2	WELDMENT, SPINDLE
12	3334059	2	ASSEMBLY, BRAKE, RH-LH
13	3400006	8	SCREW, 5/8-11 x 1.00 BUTTON HD CAP
14	3400030	8	SCREW, HEX, 3/8-16 X 1.00 ZP
15	3400076	2	NUT, SLOTTED 1-14
16	3400120	2	PIN, COTTER 3/16 X 1.50 ZP
17	3401570-9	8	WASHER, NORD-LOCK, 3/8 ZP
18	600387	-	ASSEMBLY, TIRE, 650-10
19	600904	2	TIRE, PNEUMATIC, 650-10 (23.2" T-800)
20	711380	24	NUT, FIBER INSERT 3/8-16
21	713042	24	SCREW, 3/8-16 X 1.000 HHC
22	PART OF 3307254/5-W	2	LINER, FRONT

STEERING COLUMN



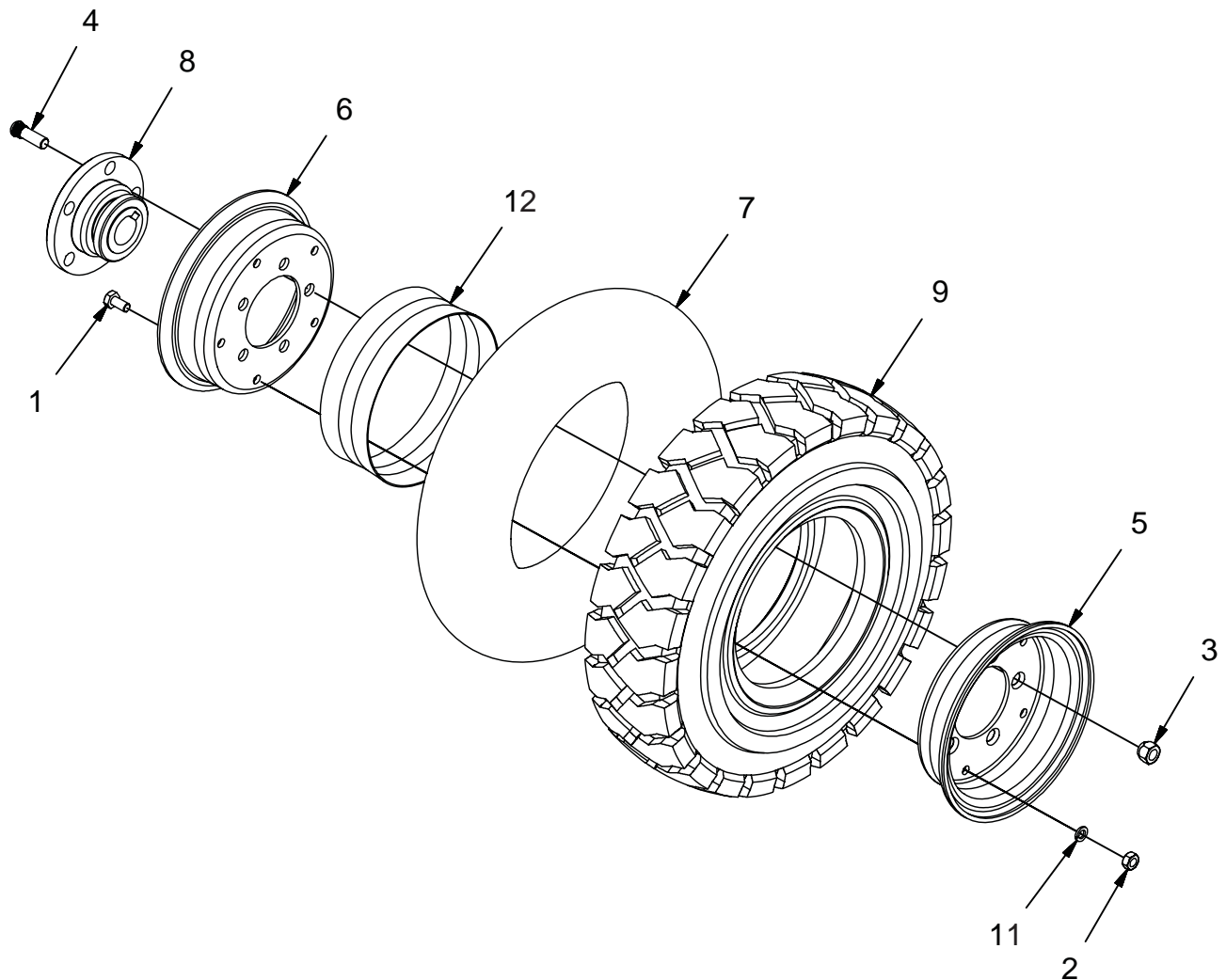
Parts List			
ITEM	PART NUMBER	QTY	DESCRIPTION
1	11038072	4	BOLT, M6-100 X 16 HH
2	12310058	2	WASHER, M10
3	3338215	1	STEERING WHEEL
4	3400383	4	WASHER, 1/4 BELLEVILLE
5	3400635	4	FITTING, STR, 6 JIC - 6 O-RING
6	600260	1	KNOB, LEVER
7	600368	1	STEERING UNIT
8	600389	1	STEERING RING
9	600465	1	WELDMENT, STEERING MNT
10	600516	1	SHAFT, ROLLER
11	600569	2	RETAINING RING, EXT .50 HD
12	620057	1	NUT, JAM, M16-1.50 STL ZP
13	PART OF 3338215	1	COVER, STEERING WHEEL
14	REF	1	FRAME
15	REF	1	FRAME

DRIVE MOTOR STEERING CYLINDER AND FORK



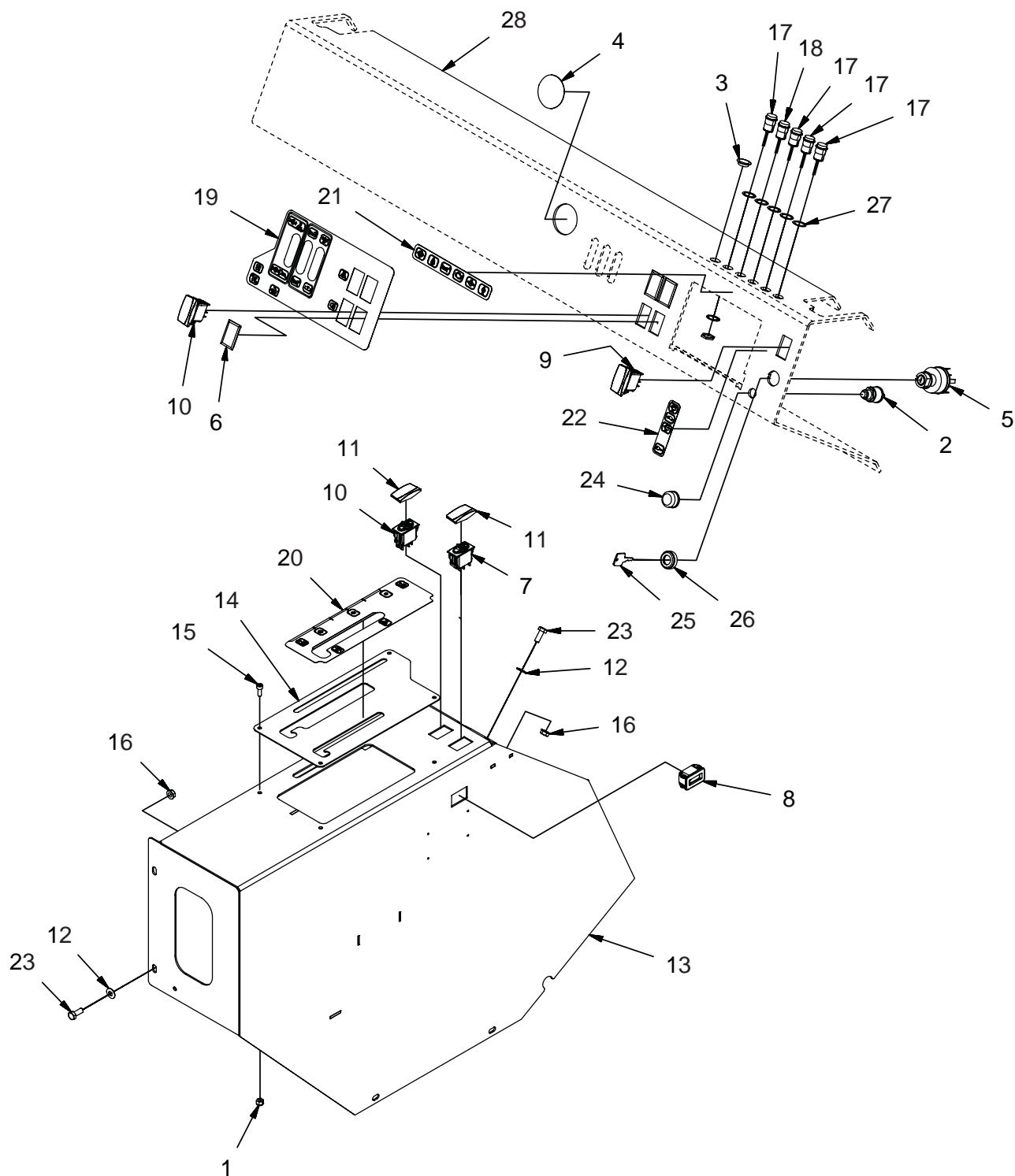
Parts List			
ITEM	PART NUMBER	QTY	DESCRIPTION
1	12040077	4	NUT-NYLOC M12-1.75 STL ZINC
2	3300470	1	BEARING, PIVOT BEARING - CUP
3	3300472	1	BEARING, PIVOT THRUST
4	3305108	1	MOTOR, HYD. WHEEL
5	3400012	1	GREASE ZIRK
6	3400020	4	BOLT, 1/2-13 X 2.00 HH
7	3400119	1	PIN, COTTER 3/16 X 1.50 ZP
8	3400122	1	COTTERPIN .125 X 2.00
9	3400153	2	FITTING, 90, 6 JIC - 6 O-RING
10	383194	1	BEARING - CONE W/SEAL
11	600105	1	CYLINDER, STEERING
12	600177	1	ROD END, MALE, 3/4-16
13	600178	1	ROD END, FEM, 3/4-16 W/ZERK
14	600186	1	WELDMENT, FORK
15	600252	1	WELDMENT, FORK MNT
16	600328	1	SPACER, .766 B 1.50 OD .438 T
17	600329	1	SPACER, .766 B 1.75 OD 1.03T
18	600587	1	FITTING, STR, 4 JIC - 4 O-RING
19	600588	2	FITTING, STR, 8 JIC - 12 O-RING
20	600807	1	PLATE, HOSE GUIDE
21	600808	1	CLAMP, WM HOSE
22	600928	4	BOLT, M12-1.75 X 40 HH
23	600932	2	BOLT, 3/4-16 X 3.25 HH
24	600939	2	NUT, 3/4-16 JAM
25	620059	2	NUT, 3/4-16 FIBER INSERT STL ZP
26	620066	1	NUT, SLOTTED, 1-1/4-12
27	711376	4	NUT, FIBER INSERT 1/2-13
28	711377	2	NUT, FIBER INSERT 1/4-20
29	713003	2	SCREW, 1/4-20 X 1.00 HH
30	PART OF 3305108	1	NUT 1.25-18
31	PART OF 3305108	1	KEY .44 SQ X 1.25

REAR WHEEL



Parts List			
ITEM	PART NUMBER	QTY	DESCRIPTION
1	11038353	5	BOLT, M10-1.50 X 20 HH
2	12022067	5	NUT, M10-1.50 HEX
3	3300411	5	NUT, LUG
4	3307348	5	STUD, WHEEL
5	600255	1	RIM, OUTER, 500-8
6	600256	1	RIM, INNER, 500-8
7	600257	1	TUBE, TIRE, 500-8
8	600335	1	HUB, REAR WHEEL
9	600336	1	TIRE, PNEUMATIC, 500-8
10	600388	-	ASSEMBLY, TIRE, 500-8
11	600945	5	LOCK WASHER, M10
12	PART OF 600255/6	1	LINER, REAR

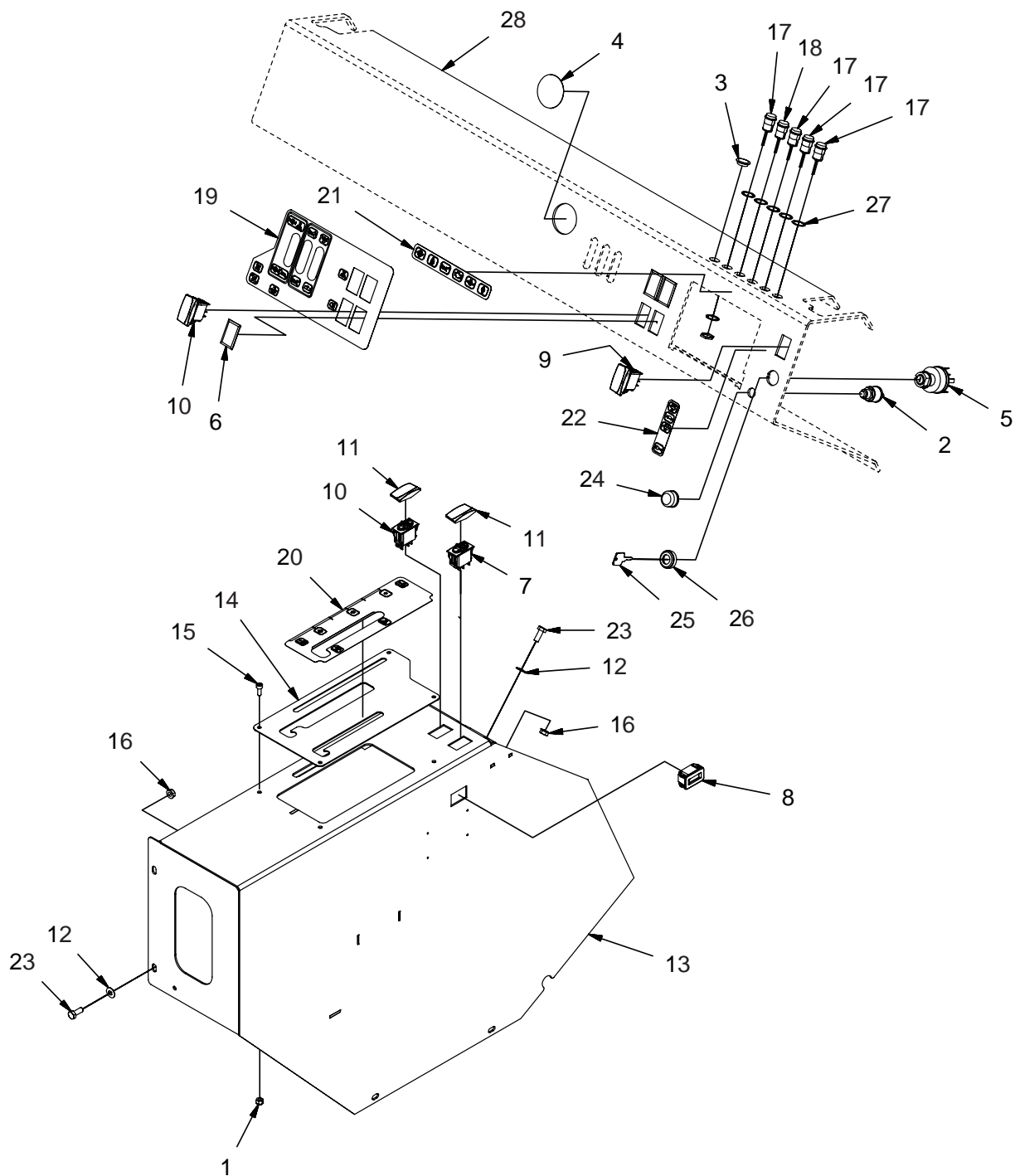
**INSTRUMENT PANEL - SWITCHES, DECALS AND LAMPS GAS AND LPG**





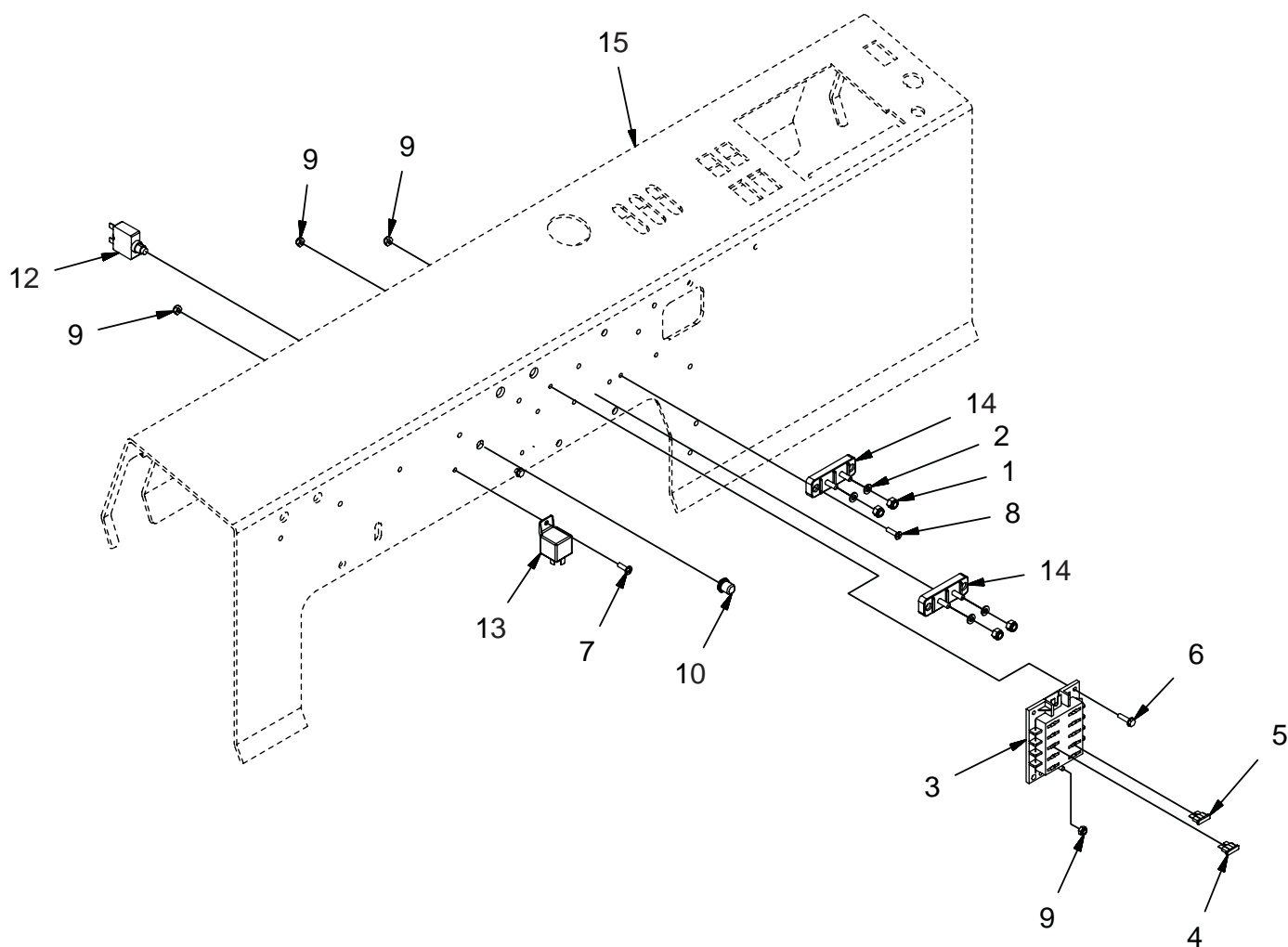
Parts List			
ITEM	PART NUMBER	QTY	DESCRIPTION
1	12040044	4	NUT, M6-1.00 ESN
2	3300441	1	SWITCH, MOMENTARY
3	3301669	1	COVER, HOLE
4	3301822	1	PLUG, PLASTIC, 2.00
5	3316100	1	KEYSWITCH
6	3323529	3	COVER
7	3335114	1	SWITCH, MOMENTARY
8	3336094	1	HOUR METER
9	3342703	1	SWITCH, 3-POSITION
10	3342705	2	SWITCH, DPST
11	3344038	2	SWITCH CAP
12	3400384	4	WASHER, 5/16 BELLEVILLE
13	600474	1	WELDMENT, CONSOLE
14	600560-1	1	PLATE, WEAR
15	600912	4	BOLT, M6-1.00 X 16 AHCS
16	600934	4	NUT, M8-1.25 FLNG
17	620069-1	4	LIGHT ASSY, INDICATOR RED - LED
18	620070-1	1	LIGHT ASSY, INDICATOR AMBER - LED
19	715922	1	DECAL, VALVE, ATLAS
20	715934	1	DECAL, BROOMS, ATLAS
21	715936	1	DECAL, WARNING LIGHTS, ATLAS
22	715937	1	DECAL, ENGINE, ATLAS
23	717024	4	BOLT, M8-1.25 X 20 HH
24	PART OF 3300441	1	CAP, HORN SWITCH
25	PART OF 3316100	1	KEY
26	PART OF 3316100	1	NUT, KEYSWITCH
27	REF	5	SEAL FOR LED INDICATOR LIGHT
28	REF	-	FRAME

**INSTRUMENT PANEL - SWITCHES, DECALS AND LAMPS DIESEL**



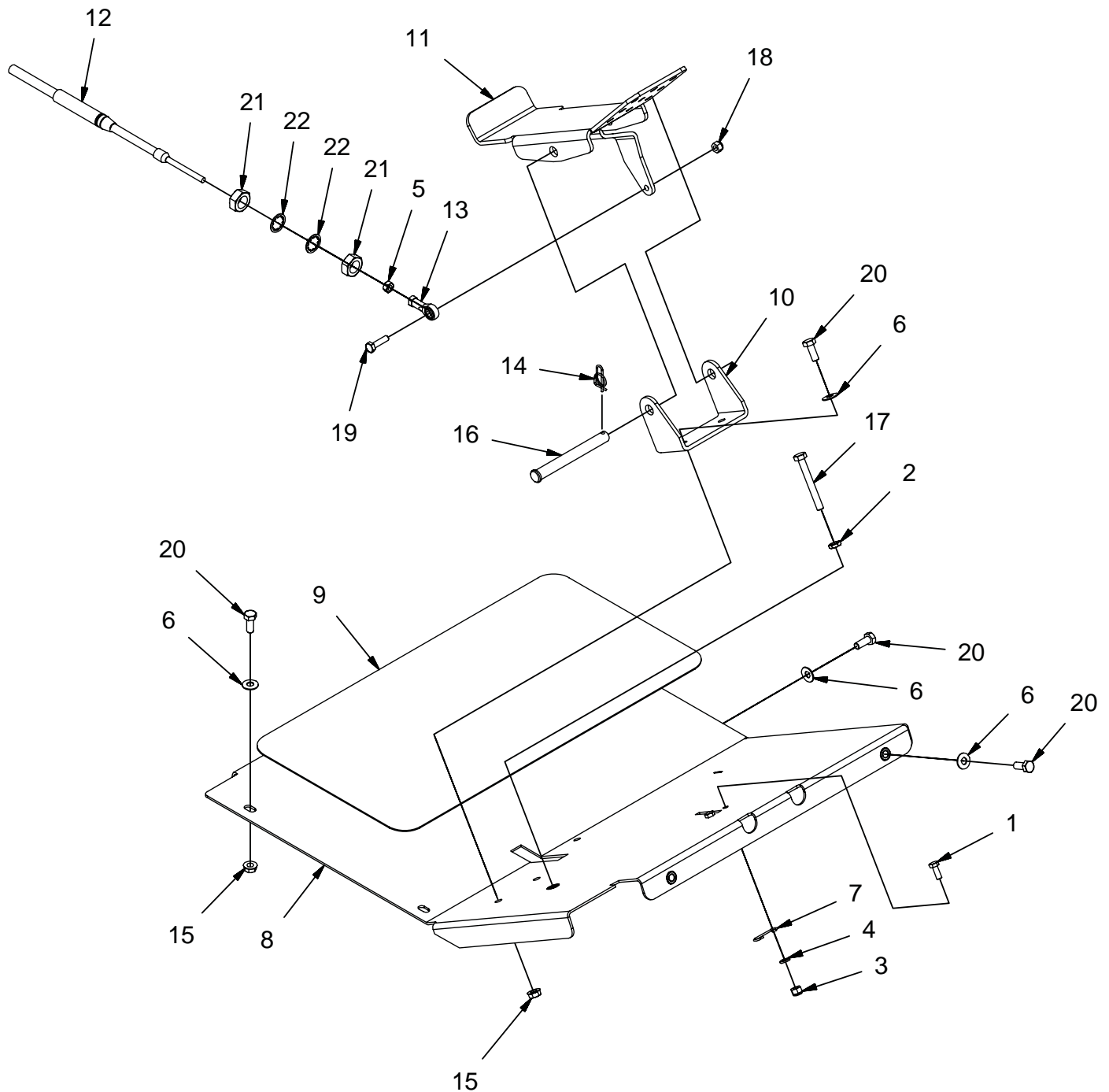
Parts List			
ITEM	PART NUMBER	QTY	DESCRIPTION
1	12040044	4	NUT, M6-1.00 ESN
2	3300441	1	SWITCH, MOMENTARY
3	3301669	1	COVER, HOLE
4	3301822	1	PLUG, PLASTIC, 2.00
5	3316100	1	KEYSWITCH
6	3323529	3	COVER
7	3335114	1	SWITCH, MOMENTARY
8	3336094	1	HOUR METER
9	3342703	1	SWITCH, 3-POSITION
10	3342705	2	SWITCH, DPST
11	3344038	2	SWITCH CAP
12	3400384	4	WASHER, 5/16 BELLEVILLE
13	600474	1	WELDMENT, CONSOLE
14	600560-1	1	PLATE, WEAR
15	600912	4	BOLT, M6-1.00 X 16 AHCS
16	600934	4	NUT, M8-1.25 FLNG
17	620069-1	4	LIGHT ASSY, INDICATOR RED - LED
18	620070-1	1	LIGHT ASSY, INDICATOR AMBER - LED
19	715922	1	DECAL, VALVE, ATLAS
20	715934	1	DECAL, BROOMS, ATLAS
21	715936	1	DECAL, WARNING LIGHTS, ATLAS
22	715937	1	DECAL, ENGINE, ATLAS
23	717024	4	BOLT, M8-1.25 X 20 HH
24	PART OF 3300441	1	CAP, HORN SWITCH
25	PART OF 3316100	1	KEY
26	PART OF 3316100	1	NUT, KEYSWITCH
27	REF	5	SEAL FOR LED INDICATOR LIGHT
28	REF	-	FRAME

INSTRUMENT PANEL - FUSES, CIRCUIT BREAKER, AND TERMINAL BLOCK



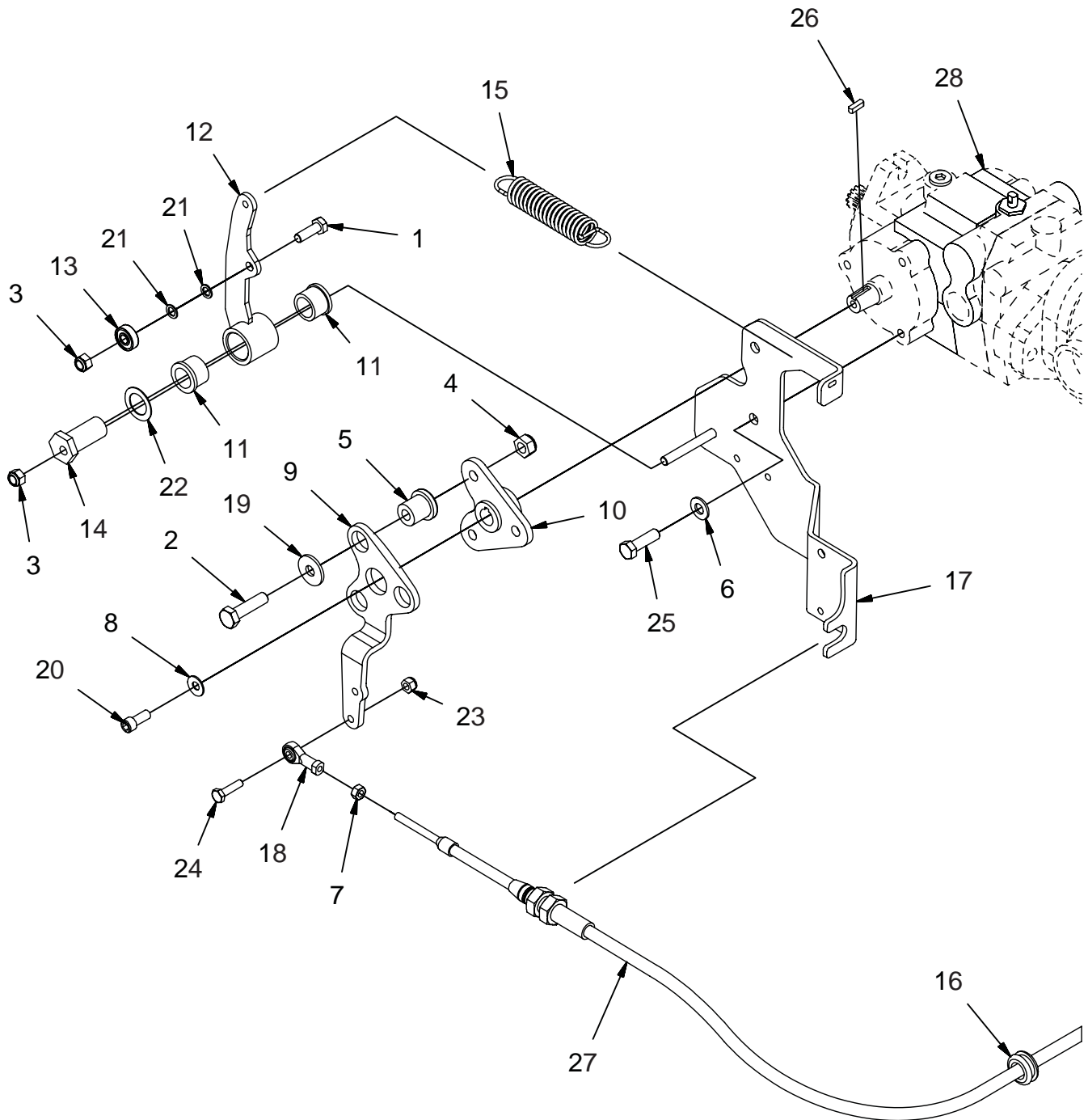
Parts List			
ITEM	PART NUMBER	QTY	DESCRIPTION
1	12040044	4	NUT, M6-1.00 ESN
2	12310033	4	WASHER, M6
3	3322599-2	1	FUSE BLOCK
4	3322601	6	FUSE, 15A
5	3335329	4	FUSE, 10A
6	3400044	2	#10-32 X .75 SERHXFLGSCRZ
7	3400204	1	SCREW, #10-32 X .625 PAN HD ZP
8	710556	4	SCREW, FHMS, 10-32 X .75 ZP
9	711350	8	NUT, 10-32, ESN
10	742748	1	BOOT, CIRCUIT BREAKER
11	748900	1	HARNESS, MAIN
12	748904	1	CIRCUIT BREAKER, 40A
13	90264672	1	RELAY
14	90286238	2	TERMINAL BLOCK
15	REF.	-	FRAME

DIRECTIONAL CONTROL



Parts List			
ITEM	PART NUMBER	QTY	DESCRIPTION
1	11038072	2	BOLT, M6-100 X 16 HH
2	12012019	1	NUT, M8-1.25 JAM
3	12040044	2	NUT, M6-1.00 ESN
4	12310033	2	WASHER, M6
5	3400180	1	NUT, 1/4-28
6	3400384	8	WASHER, 5/16 BELLEVILLE
7	600125	1	CATCH, PARKING BRAKE
8	600128-1	1	WELDMENT, FLOOR
9	600133	1	PAD, FLOOR
10	600134	1	BRACKET, F/R PEDAL
11	600135	1	PEDAL, F/R
12	600136	1	CABLE, DIR CONTROL
13	600175	1	ROD END, FEM 1/4-28
14	600578	1	RUE-RING, .50
15	600934	4	NUT, M8-1.25 FLNG
16	620027	1	PIN, CLEVIS 1/2 X 4.50
17	620033	1	BOLT, M8-1.25 X 65 HH
18	711377	1	NUT, FIBER INSERT 1/4-20
19	713003	1	SCREW, 1/4-20 X 1.00 HH
20	717024	8	BOLT, M8-1.25 X 20 HH
21	PART OF 600136	2	NUT, 5/8-18 JAM
22	PART OF 60136	2	LOCK WASHER

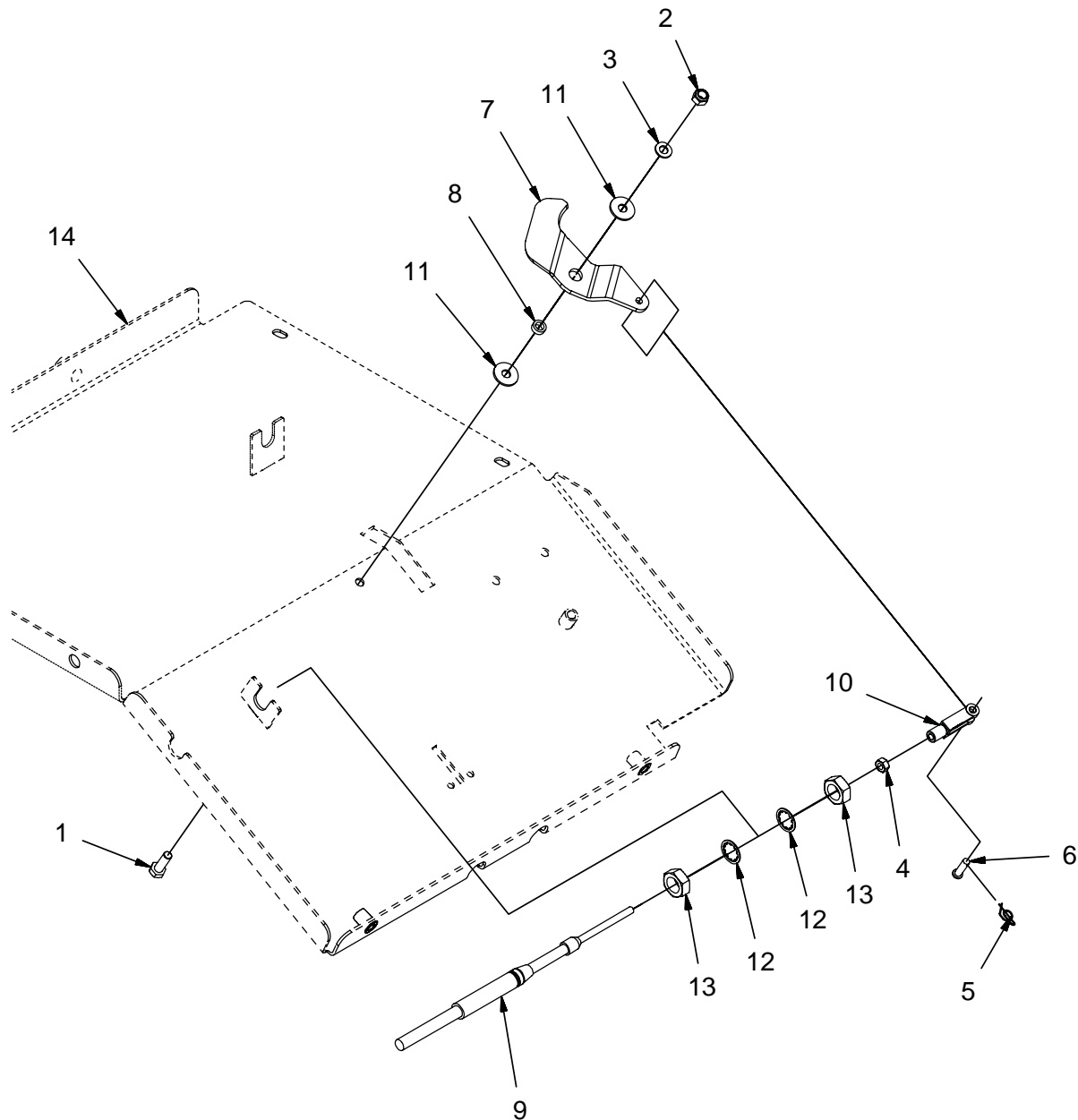
PUMP CENTERING AND DIRECTION CONTROL LINKAGE





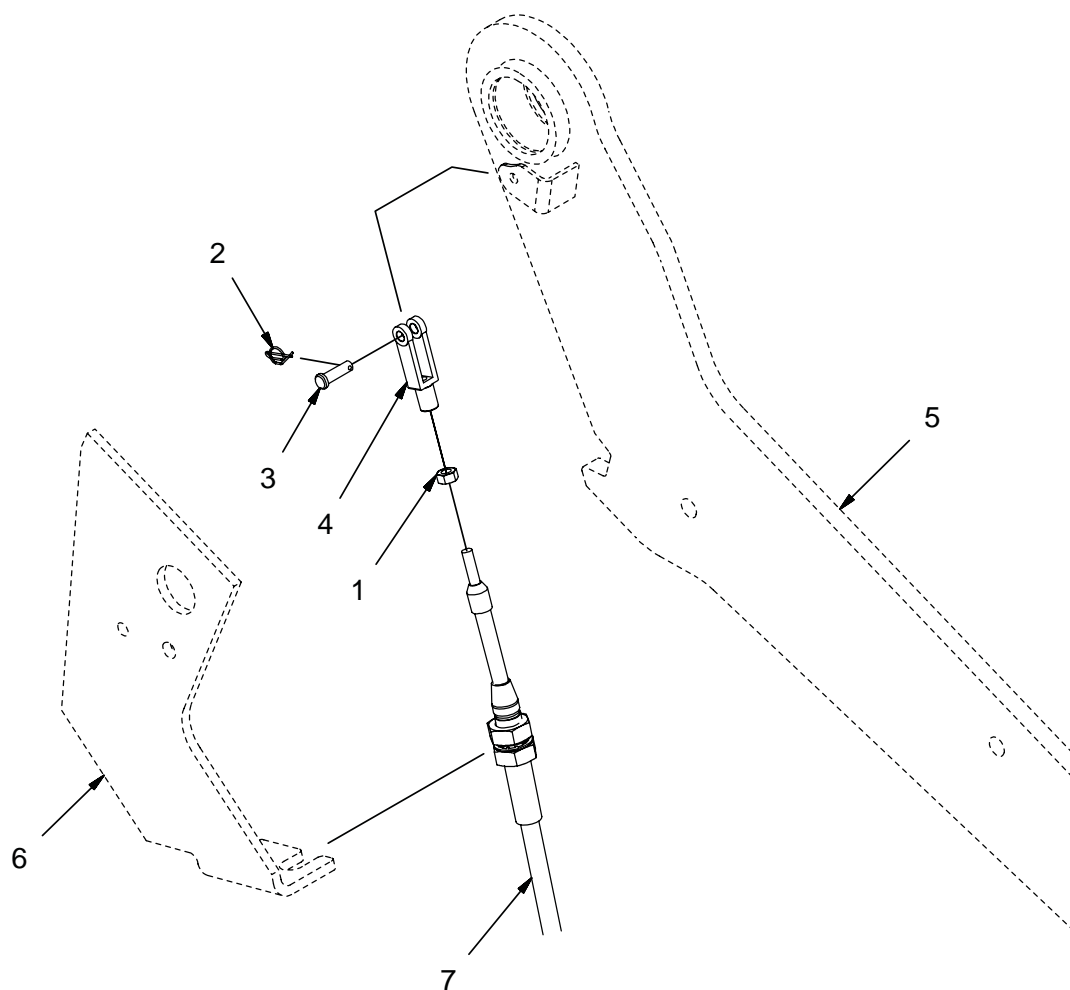
Parts List			
ITEM	PART NUMBER	QTY	DESCRIPTION
1	11038247	1	BLT-HH M8-125 X 25 STL ZINC
2	11038395	3	BOLT, M10-1.50 X 40 HH
3	12040051	2	NUT, M8-1.25 ESN
4	12040069	3	NUT, M10-1.50 ESN
5	3300465	3	ISOLATOR, VIB
6	3400087	2	WASHER, 3/8
7	3400180	1	NUT, 1/4-28
8	3400384	1	WASHER, 5/16 BELLEVILLE
9	600140	1	ARM, DIR CONT
10	600141	1	WELDMENT, DIR CONT HUB
11	600144	2	BEARING, BRONZE .75 B 1.00 OD .75L
12	600145	1	WELDMENT, CENTERING ARM
13	600148	1	BEARING, BALL, 38PP
14	600149	1	CAM, CENTERING
15	600150	1	SPRING, EXT, .12 W 1.00 OD 5.00 L
16	600151	1	GROMMET, .63 ID .88 OD .25 T
17	600153	1	WELDMENT, CAM MOUNT
18	600175	1	ROD END, FEM 1/4-28
19	600363	3	WASHER, ISOLATOR
20	600895	1	BOLT, 5/16-24 X .75 SHCS
21	600941	2	WASHER, .328 B .500 OD .05 THK
22	600942	1	WASHER, .81 B 1.25 OD .03 T
23	711377	1	NUT, FIBER INSERT 1/4-20
24	713003	1	SCREW, 1/4-20 X 1.00 HH
25	713043	2	SCREW, 3/8-16 X 1.25 HH
26	PART OF PUMP	1	KEY
27	REF 600136	-	CABLE, DIR CONTROL
28	REF.	-	PUMP, PROPULSION

SPEED RESTRICTION



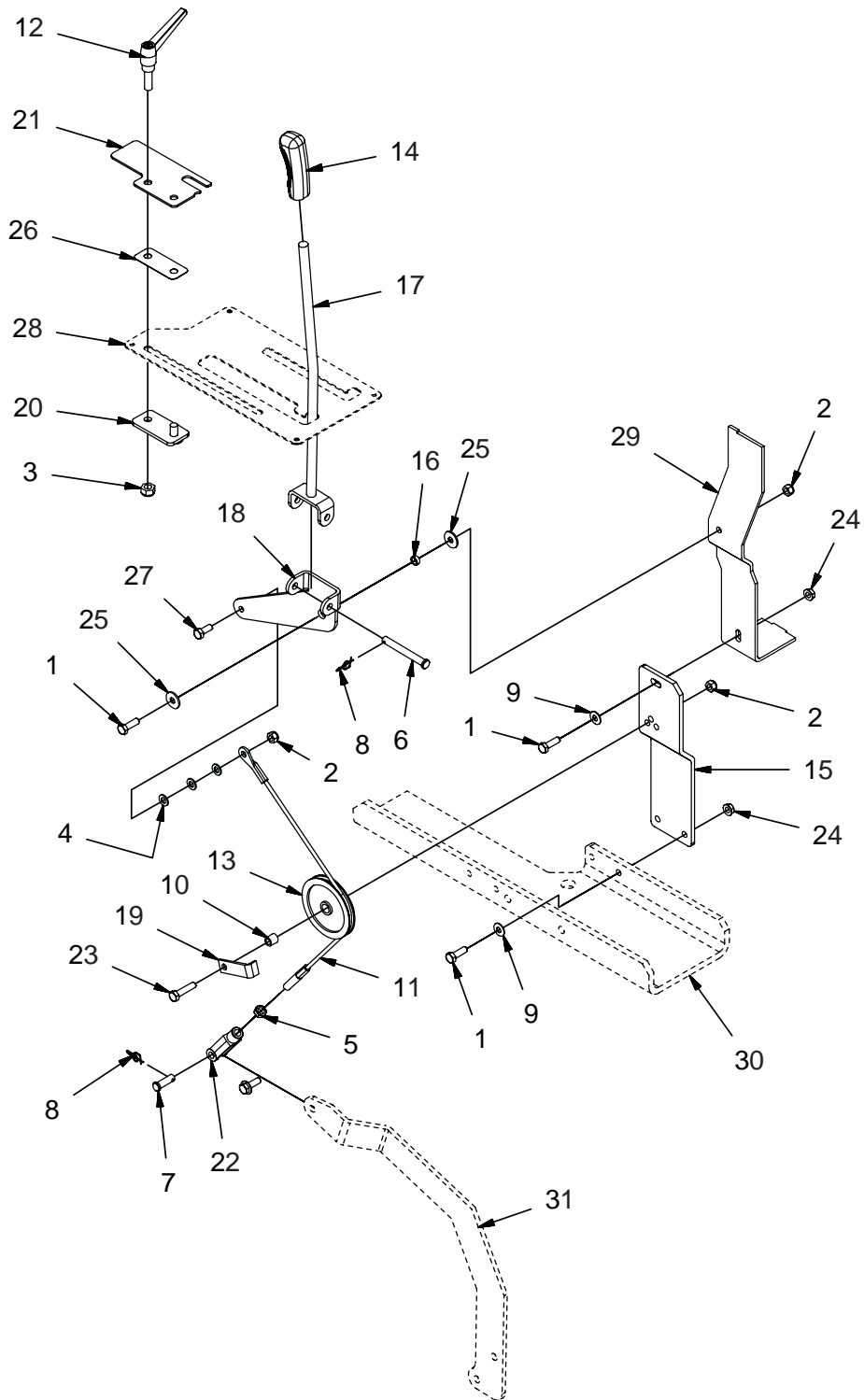
Parts List			
ITEM	PART NUMBER	QTY	DESCRIPTION
1	11038247	1	BLT-HH M8-125 X 25 STL ZINC
2	12040051	1	NUT, M8-1.25 ESN
3	12310041	1	WASHER, M8
4	3400180	1	NUT, 1/4-28
5	3400742	1	RUE-RING, .25
6	3400932	1	PIN, CLEVIS, .25 X .88
7	600137	1	BRACKET, PEDAL STOP
8	600138	1	SPACER, .328 B .500 OD .188 T
9	600139	1	CABLE, SPEED LIMIT
10	600176	1	CLEVIS, FEM, 1/4-28
11	600940	2	WASHER, M8 FENDER
12	PART OF 600139	2	LOCK WASHER
13	PART OF 600139	2	NUT, 5/8-18 JAM
14	REF.	-	FLOOR PANEL

**SPEED RESTRICTION CABLE CONNECTION**



Parts List			
ITEM	PART NUMBER	QTY	DESCRIPTION
1	3400180	1	NUT, 1/4-28
2	3400742	1	RUE-RING, .25
3	3400932	1	PIN, CLEVIS, .25 X .88
4	600176	1	CLEVIS, FEM, 1/4-28
5	REF	-	HOPPER LIFT ARM
6	REF	-	FRAME
7	REF 600139	-	CABLE, SPEED LIMIT

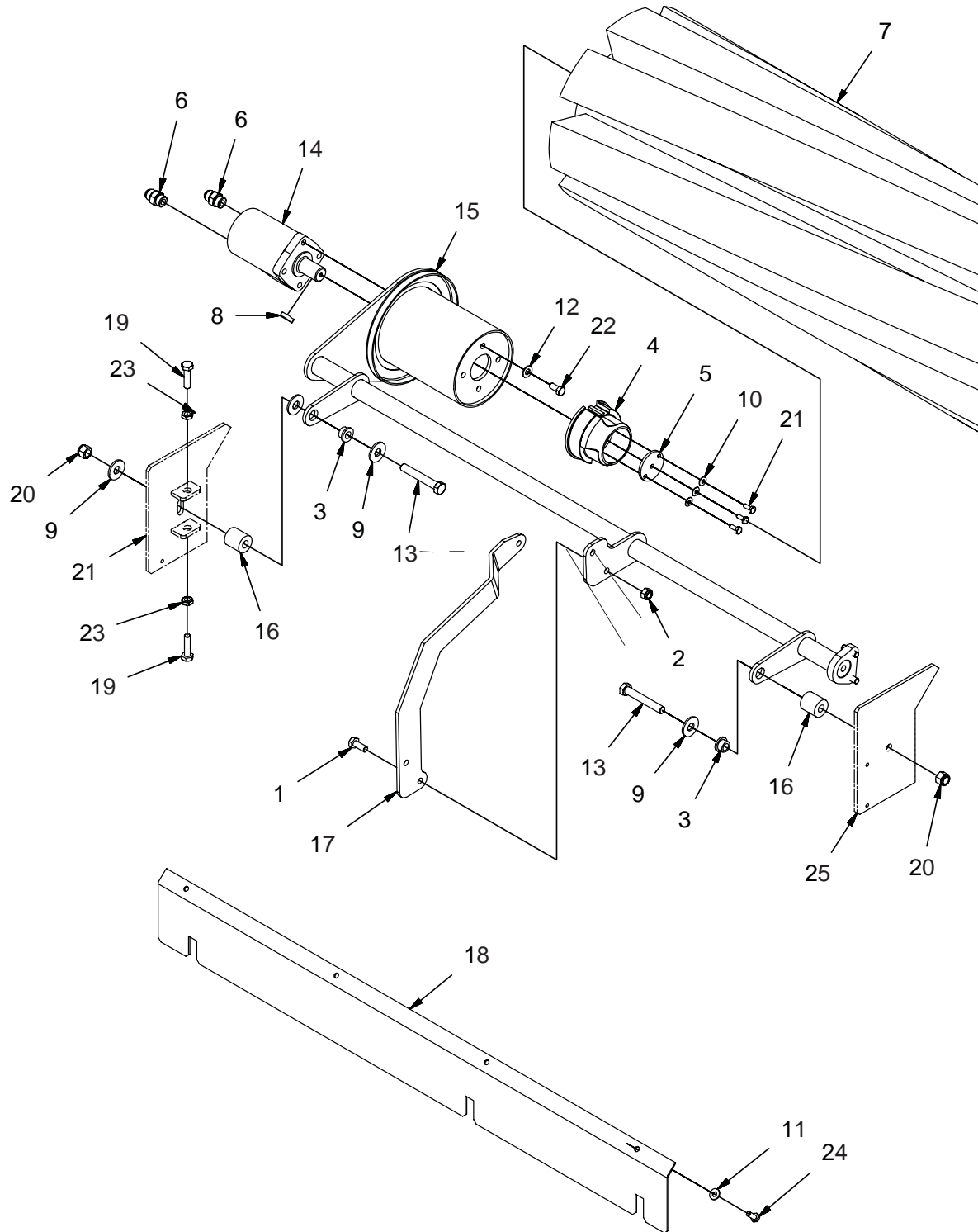
**MAIN BROOM LIFT**



Parts List			
ITEM	PART NUMBER	QTY	DESCRIPTION
1	11038247	4	BLT-HH M8-125 X 25 STL ZINC
2	12040051	3	NUT, M8-1.25 ESN
3	12040069	1	NUT, M10-1.50 ESN
4	12310041	3	WASHER, M8
5	3400075	1	NUT, HEX JAM 3/8-24
6	3400115	1	PIN, CLEVIS, .375 X 3.00
7	3400117	1	PIN, CLEVIS 3/8 X 1.125
8	3400125	2	RUE-RING, .375
9	3400384	3	WASHER, 5/16 BELLEVILLE
10	600114	1	SPACER, .328 B .498 OD .500 T
11	600172	1	CABLE, 18.56 OAL
12	600260	1	KNOB, LEVER
13	600261	1	PULLEY, .50 B. 3.00 D, .44 T
14	600264	1	HANDLE GRIP, CONTOURED
15	600464	1	BRACKET, MB PULLEY
16	600528	1	SPACER, .344 B .496 OD .189 T
17	600545	1	WELDMENT, MB LEVER
18	600548	1	MB LEVER ARM
19	600549	1	RETAINER, 3.0 CABLE
20	600550	1	WELDMENT, MB LOCK
21	600552-1	1	MB ADJ PLT
22	600813	1	CLEVIS, 3/8-24
23	600918	1	BOLT, M8-125 X 35 HH
24	600934	3	NUT, M8-1.25 FLNG
25	600940	2	WASHER, M8 FENDER
26	600998-1	1	PLATE, SLIDE
27	717024	1	BOLT, M8-1.25 X 20 HH
28	REF	-	PLATE, WEAR
29	REF	-	CONSOLE
30	REF	-	FRAME
31	REF	-	MB ARM

REV

MAIN BROOM





MAIN BROOM			
ITEM	PART NO.	REQ'D	DESCRIPTION
1	11038346	2	BOLT, M10-1.50 X 25 HH
2	12040069	2	NUT, M10-1.50 ESN
3	3300432	2	BUSHING, FLANGE
4	3301050	1	HUB, MAIN BROOM DRIVE
5	3301285	1	RETAINER, MAIN BROOM DRIVE HUB
6	3304899	2	FITTING, STR, 8 JIC - 8 O-RING
7	3305818	1	MAIN BROOM-48"HIGH DEN FIBER & WIRE
	3305812	1	MAIN BROOM-48" NYLON
	3305665	1	MAIN BROOM-48" HIGH DENSITY NYLON
	3305814	1	MAIN BROOM-48" NYLON CHEVRON (PATROL)
	3315315	1	MAIN BROOM-48"STIFF NYLON
	3305663	1	MAIN BROOM-48" PROEX & WIRE
	3305824	1	MAIN BROOM-48" CRINKLE WIRE
	3332456	1	MAIN BROOM-48" STIFF POLY & WIRE
8	3330338	1	KEY, WOODRUFF .25 X .5
9	3400086	4	WASHER, 1/2, 1.063 X .531 X .094
10	3400383	3	WASHER, 1/4 BELLEVILLE
11	3400384	4	WASHER, 5/16 BELLEVILLE
12	3400385	4	WASHER, 3/8. BELLEVILLE
13	3400761	2	BOLT, 1/2-13 X 3.25 HHC
14	600267	1	MOTOR, 2.8 DISP
15	600290	1	WELDMENT, MAIN BROOM ARM
16	600520	2	SPACER, .531 B 1.25 OD 1.31 T
17	600561	1	ARM, MB LIFT
18	600562	1	GUARD, MB SHAFT
19	600962	2	BOLT, M10-1.50 X 40 HH FULL THRD
20	711376	2	NUT, FIBER INSERT 1/2-13
21	713001	3	SCREW, 1/4-20 X .625 HHC
22	713041	4	SCREW, 3/8-16 X .750 HHC
23	717014	2	NUT, M10-1.50 JAM
24	717024	4	BOLT, M8-1.25 X 20 HH
25	REF.	1	FRAME

### Main Broom User's Guide

**Proex & Wire** - Slightly encrusted soilage & dusty conditions. High heat.

**Nylon** - General purpose broom with long life bristles.

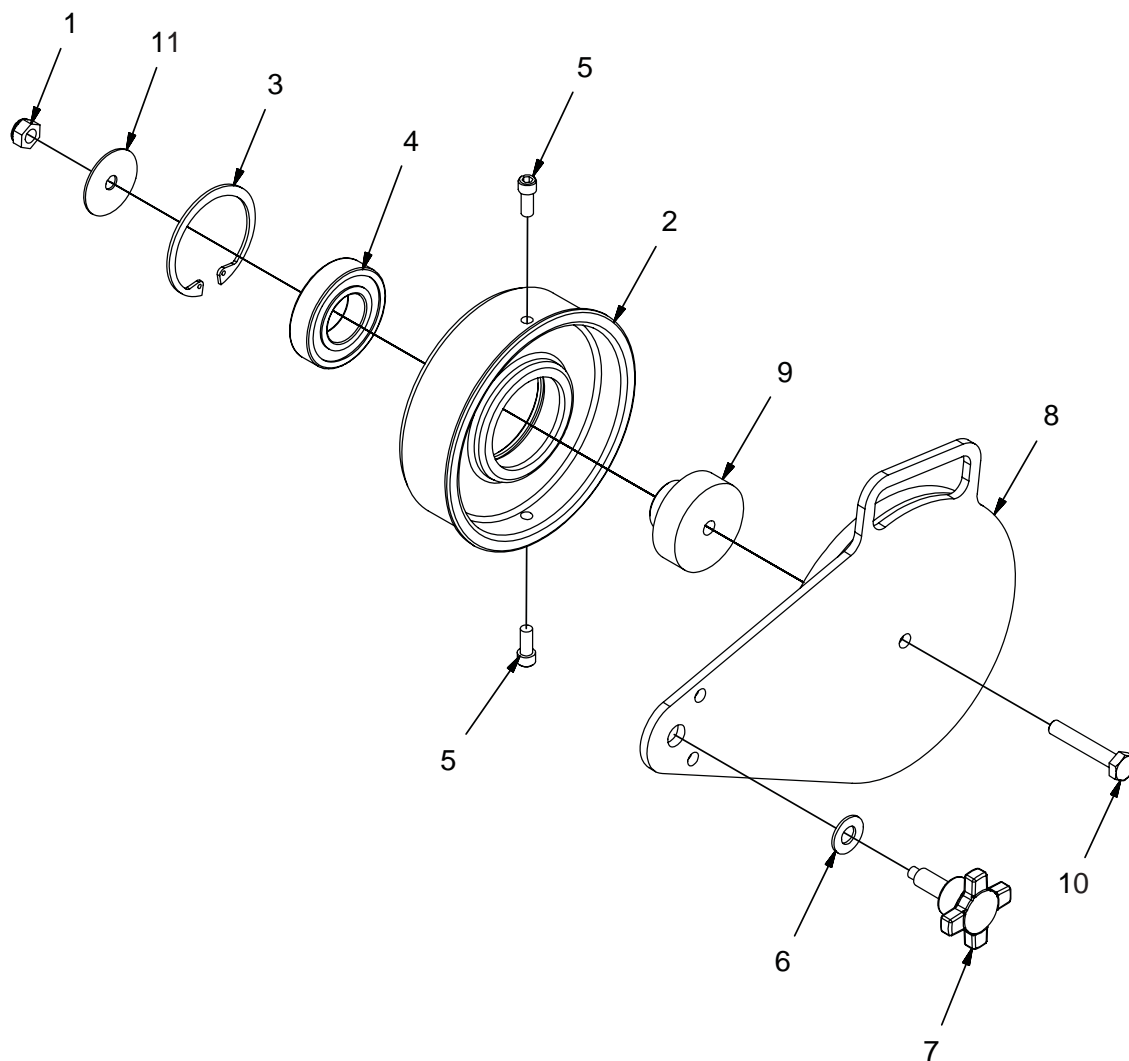
**Poly Proex** - All purpose broom that stands up well on rough surfaces.

**High Density Nylon** - Highly effective for small particle soilage. Severe dust environments.

**Crinkle Wire** - Stiff bristles for compacted grime, oil, grease or mud. Fair to good broom life.

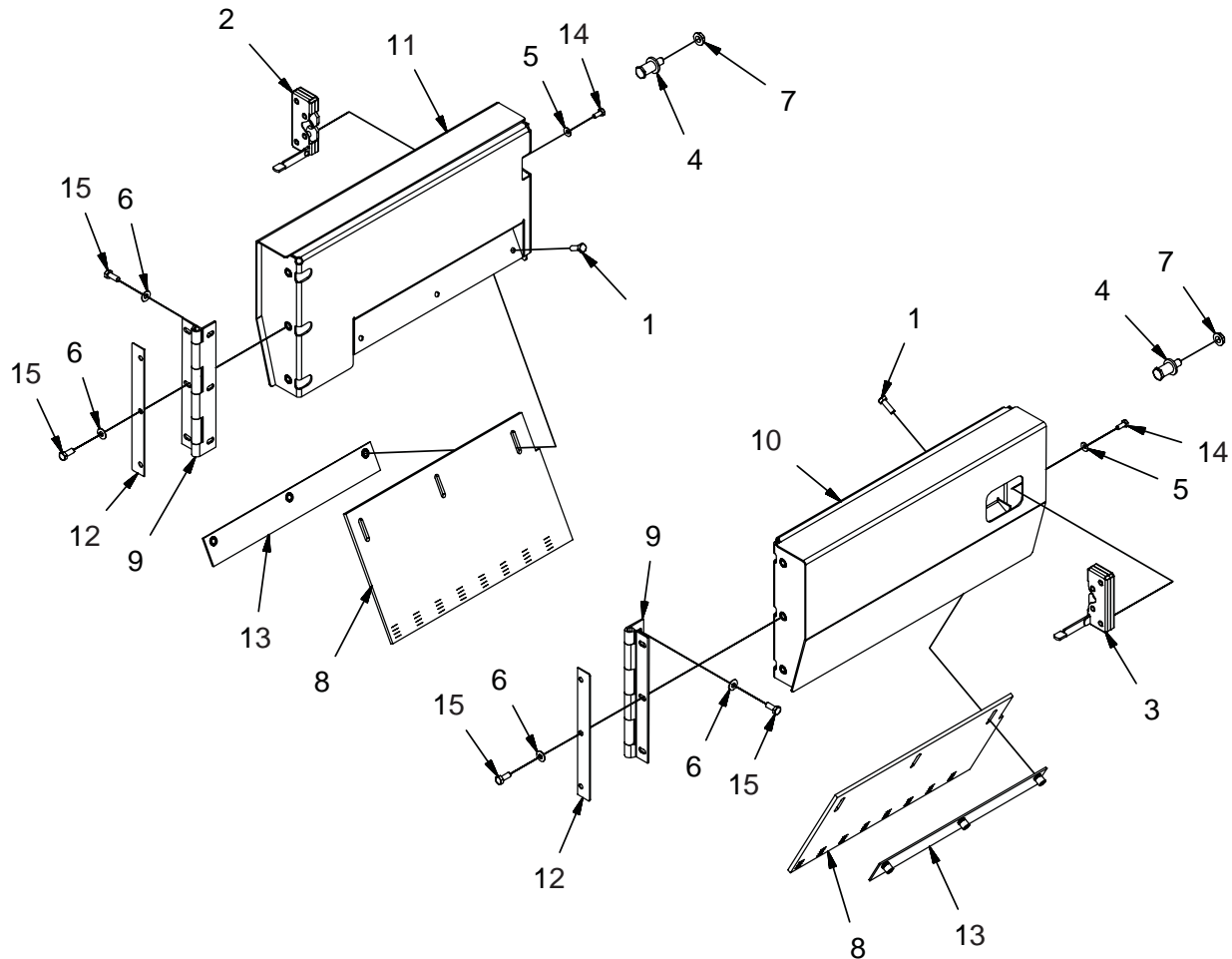
**Natural Fiber & Wire** - Good all around broom. Good for high heat applications.

MAIN BROOM IDLER



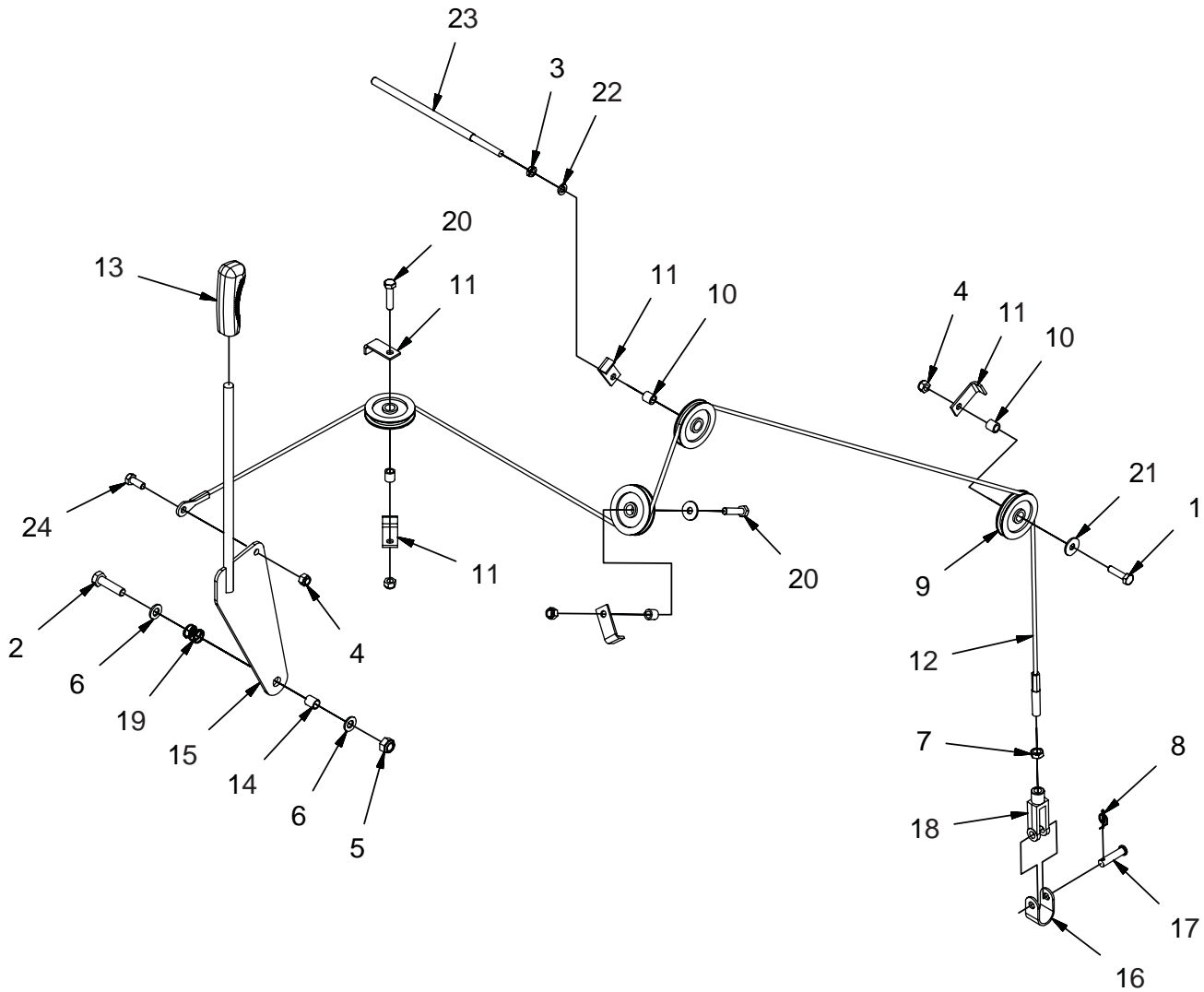
Parts List			
ITEM	PART NUMBER	QTY	DESCRIPTION
1	12040069	1	NUT, M10-1.50 ESN
2	3305642	1	IDLER, MAIN BROOM
3	3305666	1	RING, RETAINING, INT
4	3305667	1	BEARING, BALL, 207PP
5	3400047	2	BOLT, 5/16-18 X .75 SHCS
6	3400387	1	WASHER, .50 CONICAL
7	3400748	1	KNOB
8	600298	1	WELDMENT, MB IDLER ARM
9	600544	1	MOUNT, BEARING
10	600925	1	BOLT, M10-1.50 X 60 HH
11	712768	1	WSR-FLT .406 X 1.875 SS

BROOM DOOR



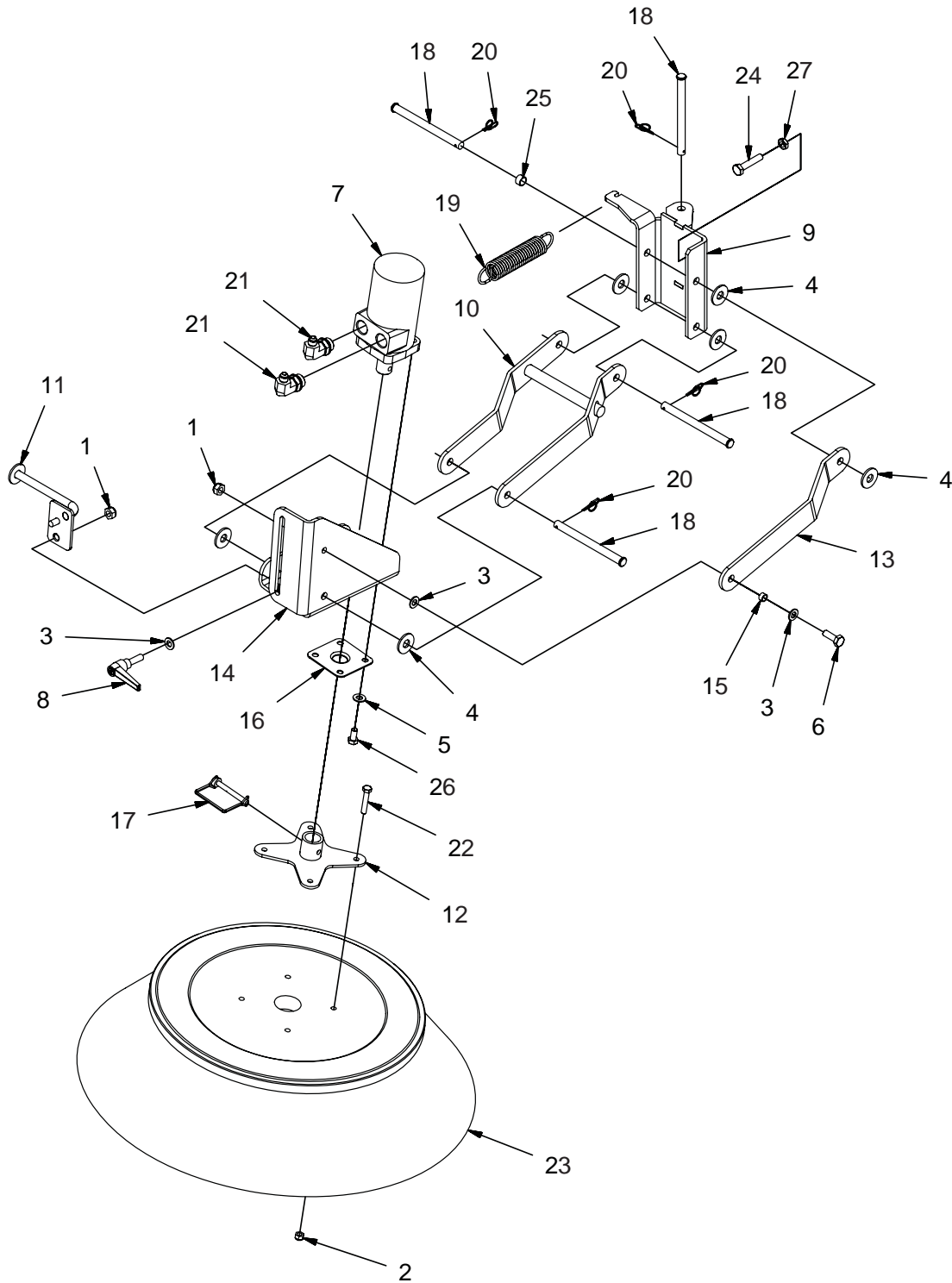
Parts List			
ITEM	PART NUMBER	QTY	DESCRIPTION
1	11038247	6	BLT-HH M8-125 X 25 STL ZINC
2	3307246	1	LATCH, LH
3	3307247	1	LATCH, RH
4	3307248	2	STRIKER-LATCH
5	3400383	4	WASHER, 1/4 BELLEVILLE
6	3400384	12	WASHER, 5/16 BELLEVILLE
7	3400394	2	NUT, 7/16-14 FLNG
8	600227	2	SKIRT, SIDE DOOR
9	600259	2	HINGE, MB
10	600307-1	1	ASSEMBLY, MB DOOR, RH
11	600311-1	1	ASSEMBLY, MB DOOR, LH
12	600314	2	BAR, COVER
13	600316-1	2	ASSEMBLY, DOOR SKIRT RETAINER
14	713001	4	SCREW, 1/4-20 X .625 HHC
15	717024	12	BOLT, M8-1.25 X 20 HH

SIDE BROOM LIFT



Parts List			
ITEM	PART NUMBER	QTY	DESCRIPTION
1	11038254	1	BOLT, M8-125 X 30 HH
2	11038395	1	BOLT, M10-1.50 X 40 HH
3	12012019	1	NUT, M8-1.25 JAM
4	12040051	4	NUT, M8-1.25 ESN
5	12040069	1	NUT, M10-1.50 ESN
6	12310058	2	WASHER, M10
7	3400075	1	NUT, HEX JAM 3/8-24
8	3400125	1	RUE-RING, .375
9	600113	4	PULLEY, .50 B, 2.00 D, .44 T
10	600114	4	SPACER, .328 B .498 OD .500 T
11	600115	5	RETAINER, CABLE
12	600173	1	CABLE, 81.88 OAL
13	600264	1	HANDLE GRIP, CONTOURED
14	600525	1	SPACER, .406 B .50 OD .57 T
15	600555	1	WELDMENT, SB LEVER
16	600558	1	BRACKET
17	600573	1	PIN, CLEVIS, 3/8 X 1.50
18	600813	1	CLEVIS, 3/8-24
19	600815	1	SPRING, COMP
20	600918	2	BOLT, M8-125 X 35 HH
21	600940	2	WASHER, M8 FENDER
22	600959	1	LOCK WASHER, M8
23	620086	1	BAR, WIRE RETAINER
24	717024	1	BOLT, M8-1.25 X 20 HH

**SIDE BROOM**





SIDE BROOM			
ITEM	PART NO.	REQ'D	DESCRIPTION
1	12040069	2	NUT, M10-1.50 ESN
2	12040259	4	NUT, M8-1.25 ESN SS
3	12310058	3	WASHER, M10
4	3400086	6	WASHER, 1/2, 1.063 X .531 X .094
5	3400385	4	WASHER, 3/8. BELLEVILLE
6	3401051	1	BOLT, M10-1.50 X 30 HH
7	600217	1	MOTOR, 17.9 DISP
8	600260	1	KNOB, LEVER
9	600300	1	WELDMENT, SB PIVOT
10	600303	1	WELDMENT, SB TRAILING ARM
11	600318	1	WELDMENT, SB ADJ
12	600322	1	WELDMENT, SB FLANGE
13	600325	1	SB LINK
14	600326	1	SB MOTOR MNT
15	600327	1	SPACER, .406 B .50 OD .280 T
16	600330	1	STRING GUARD
17	600566	1	PIN, WIRE LOCK, .313
18	600571	4	PIN, CLEVIS 1/2 X 6.00
19	600572	1	SPRING, EXT, .14 W 1.25 OD 6.50 L
20	600578	4	RUE-RING, .50
21	600592	2	FITTING, 90, 6 JIC - 10 O-RING
22	600820	4	BOLT, M8-1.25 X 45 HH
23	600900	1	SIDE BROOM, 26"
24	600926	1	BOLT, M10-1.50 X 80 HH ALL-THRD
25	600993	1	SPACER, .516 B .625 OD .375 T
26	713041	4	SCREW, 3/8-16 X .750 HHC
27	717014	1	NUT, M10-1.50 JAM

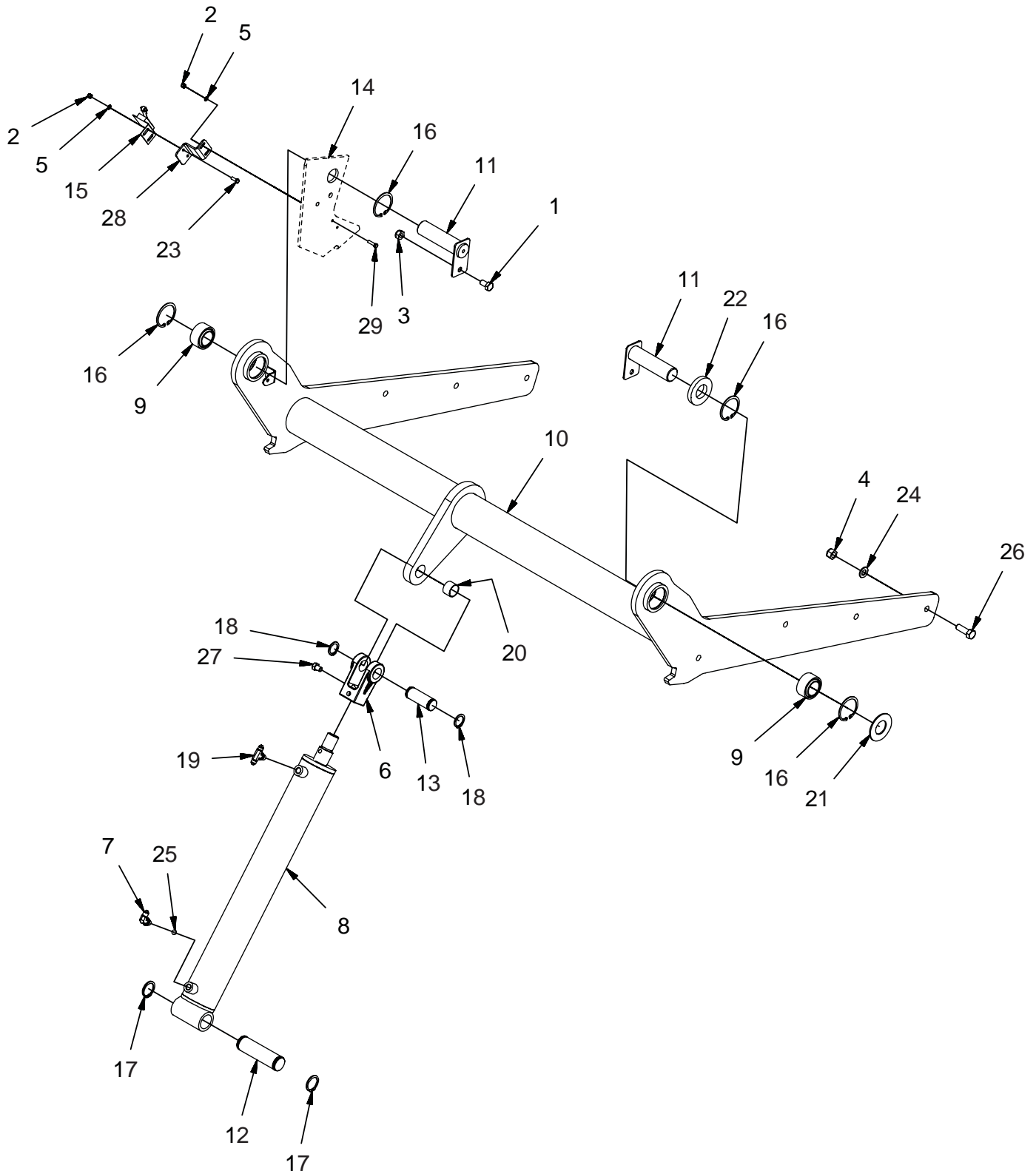
### Side Broom User's Guide

**Poly** - Stiff bristles for aggressive sweeping of mainly heavy litter. Not suited for high heat.

**Nylon** - Provides longest life. Recommended for tough sweeping jobs.

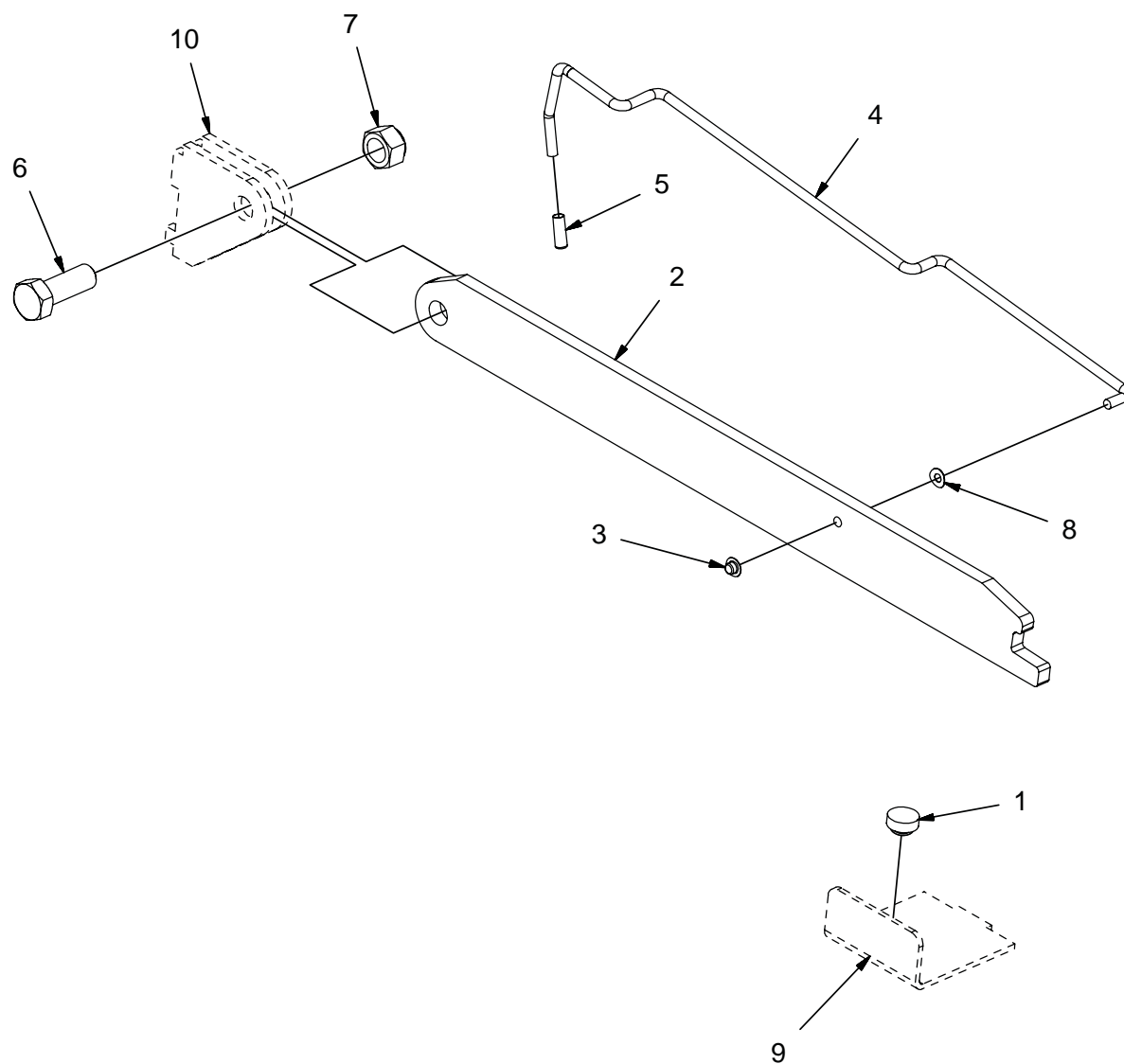
**Wire (flat)** - For areas of heavy grease build up or scarifying action. Used in high heat applications.

HOPPER LIFT



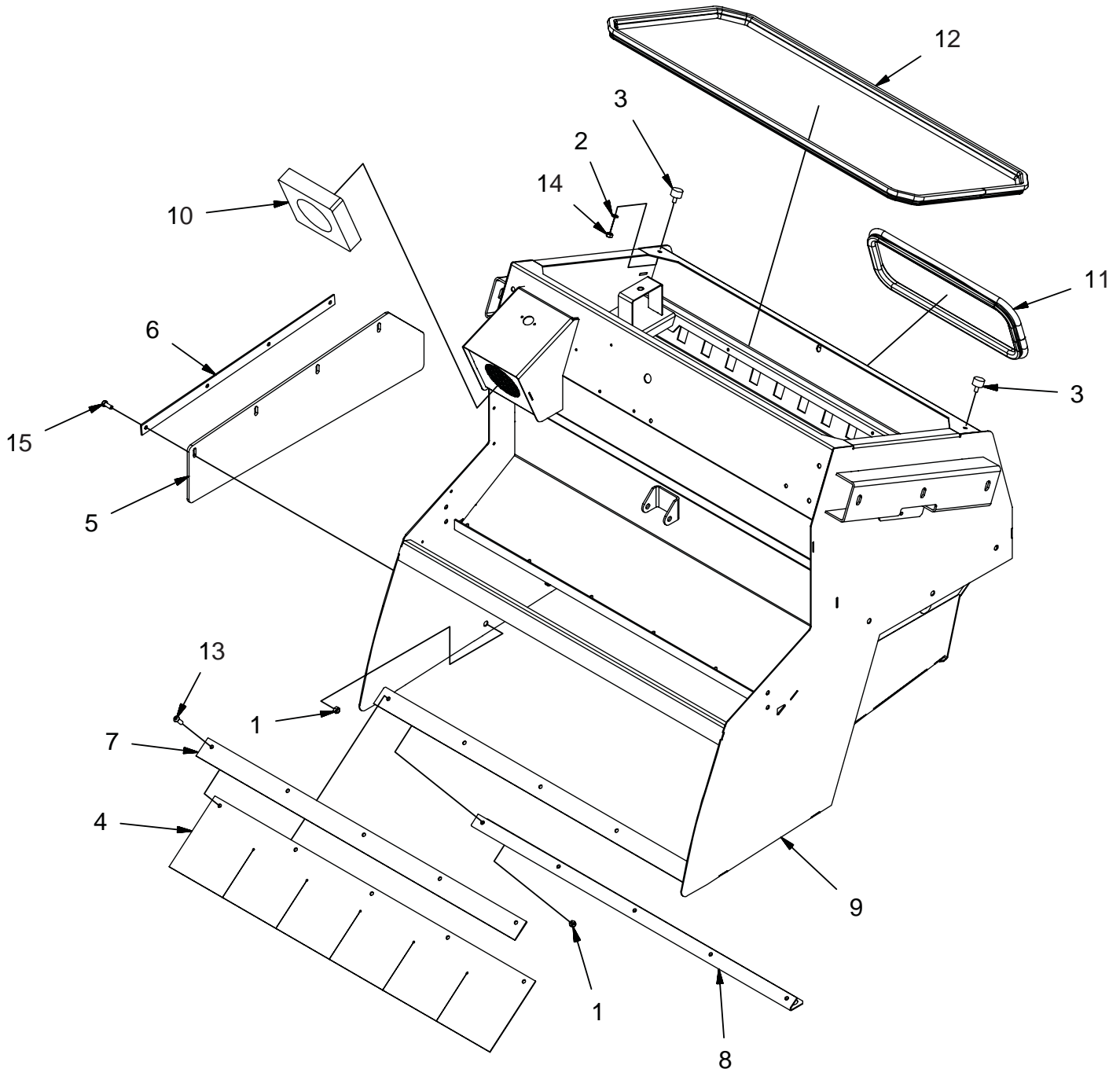
Parts List			
ITEM	PART NUMBER	QTY	DESCRIPTION
1	11038353	2	BOLT, M10-1.50 X 20 HH
2	12040036	4	NUT, M5 - 0.8 ESN
3	12040069	2	NUT, M10-1.50 ESN
4	12040077	6	NUT-NYLOC M12-1.75 STL ZINC
5	12310025	4	WASHER, M5
6	3301370	1	CLEVIS
7	3302407	1	FITTING, 90, 4 JIC - 4 O-RING
8	600104	1	CYLINDER, HOPPER LIFT
9	600109	2	BEARING, SPHERICAL
10	600270	1	ARM, HOPPER LIFT
11	600276	2	WELDMENT, PIVOT PIN
12	600331	1	PIN, LOWER CYLINDER
13	600332	1	PIN, UPPER CYLINDER
14	600445	1	W/D, FRAME, PIVOT PLT, LH
15	600530-1	1	SWITCH, LIMIT
16	600575	4	RING, RETAINING INT, 2.00
17	600576	2	RING, RETAINING EXT, 1.25 HD
18	600577	2	RETAINING RING, EXT, 1.00 HD
19	600598	1	FITTING, TEE, 4 JIC - 4 JIC - 4 O-RING
20	600801	1	BEARING, FIBERGLIDE 1.00 ID .75 T
21	600802	1	WASHER, HOPPER PIVOT, THIN
22	600803	1	WASHER, HOPPER PIVOT, THK
23	600911	2	BOLT, M5-0.8 X 14 HH
24	600950	6	WASHER, M12
25	600966	1	RESTRICTOR .047
26	620034	6	BOLT, M12-1.75 X 35 HH
27	620088	1	BOLT, 3/8-24 X .50 HH ZP
28	620211	1	BRACKET, SWITCH

HOPPER SAFETY ARM



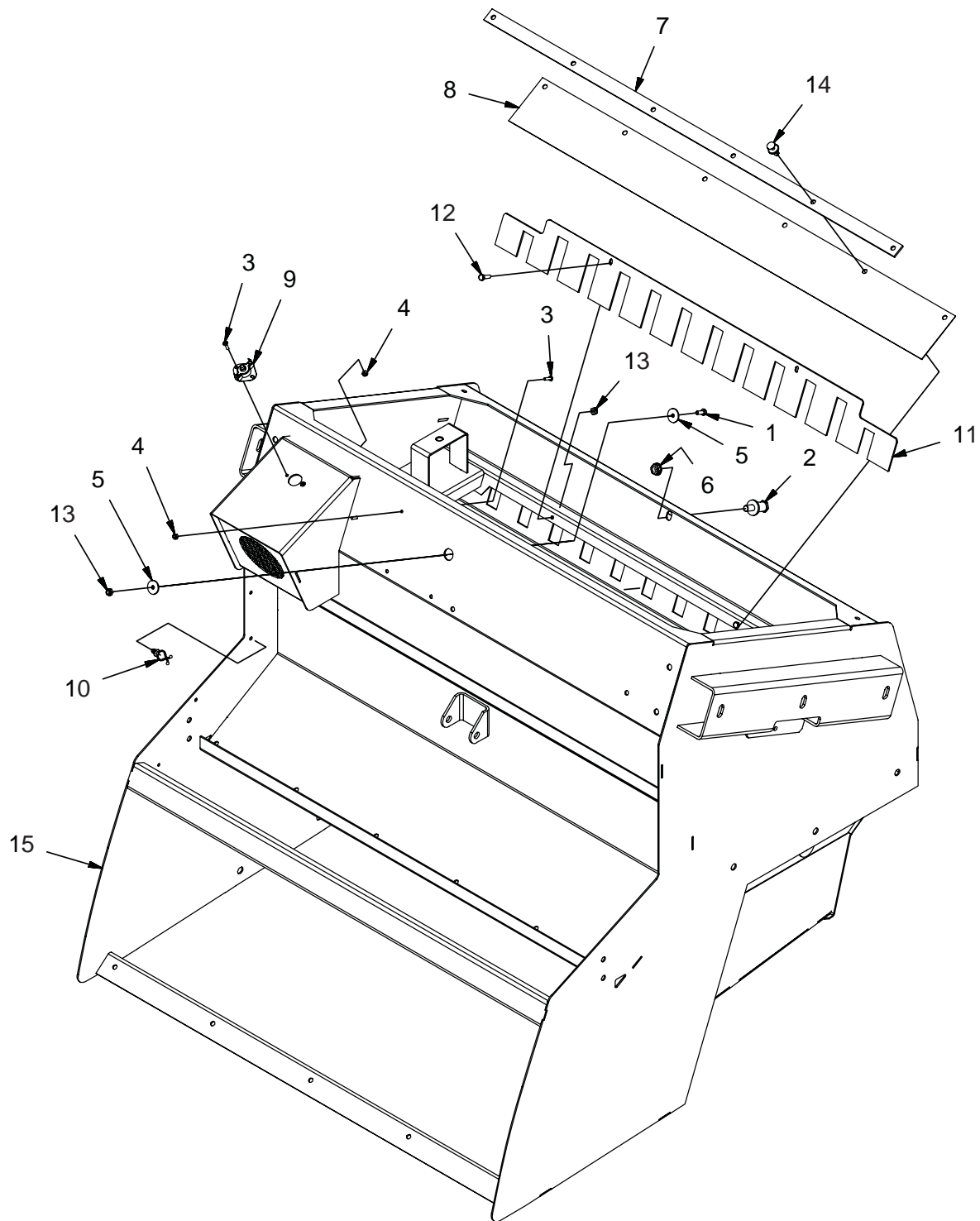
Parts List			
ITEM	PART NUMBER	QTY	DESCRIPTION
1	600117	1	BUMPER, 1.00 X .339 T
2	600196	1	SAFETY ARM
3	600481	1	AXLE CAP NUT, .313
4	600886	1	WELDMENT, SAFETY ARM LIFT
5	600910	1	CAP
6	600929	1	BOLT, M20-2.50 X 55 HH
7	600935	1	NUT, M20-2.50 ESN
8	600947	1	WASHER, .313 CURVED SPRING
9	REF.	-	FRAME
10	REF.	-	FRAME

**HOPPER SKIRTS AND SEALS**



Parts List			
ITEM	PART NUMBER	QTY	DESCRIPTION
1	12040259	9	NUT, M8-1.25 ESN SS
2	3400102	2	LOCK WASHER, 5/16 HS MED
3	600220	2	BUMPER, 1.00 X .625 T
4	600230	1	SKIRT, HOPPER LIP
5	600231	1	SKIRT, HOPPER SIDE
6	600344	1	RETAINER, HOPPER SIDE SKIRT
7	600345	1	RETAINER, HOPPER FLAP
8	600346	1	ANGLE, HOPPER LIP
9	600390-1	1	ASSEMBLY, HOPPER
10	600521	1	SEAL, HOPPER EXHAUST
11	600563	1	EDGING, HOPPER ACCESS
12	600564	1	EDGING, HOPPER COVER
13	600917	5	SCREW, M8-1.25 X 25 BUTTON HD CAP SS
14	711319	2	NUT, HEX 5/16-18
15	717030	4	BOLT, M8-1.25 X 20 HH SS
	000710	-	ADHESIVE 3M #847 (USED ON 600521)

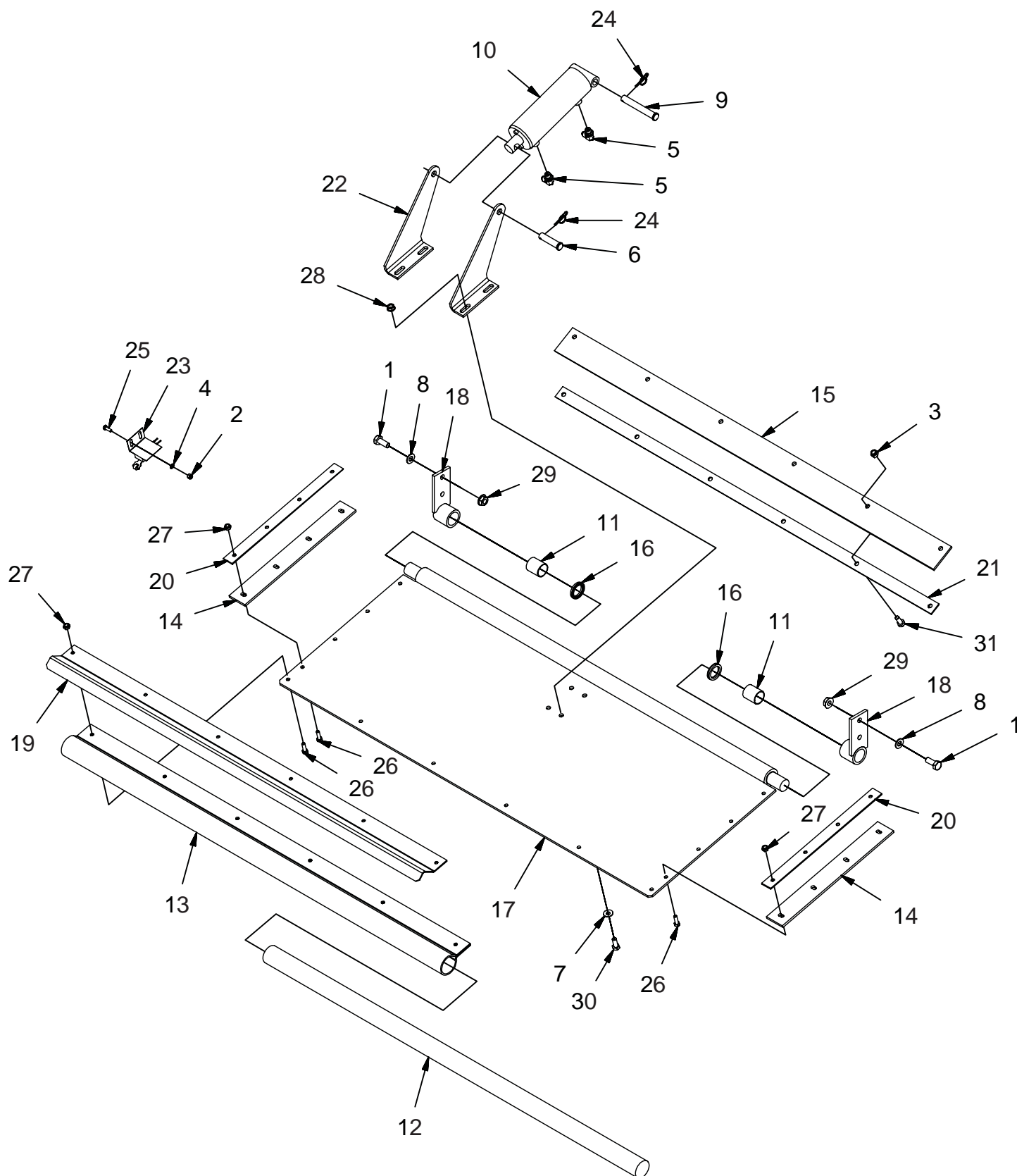
HOPPER ASSEMBLY





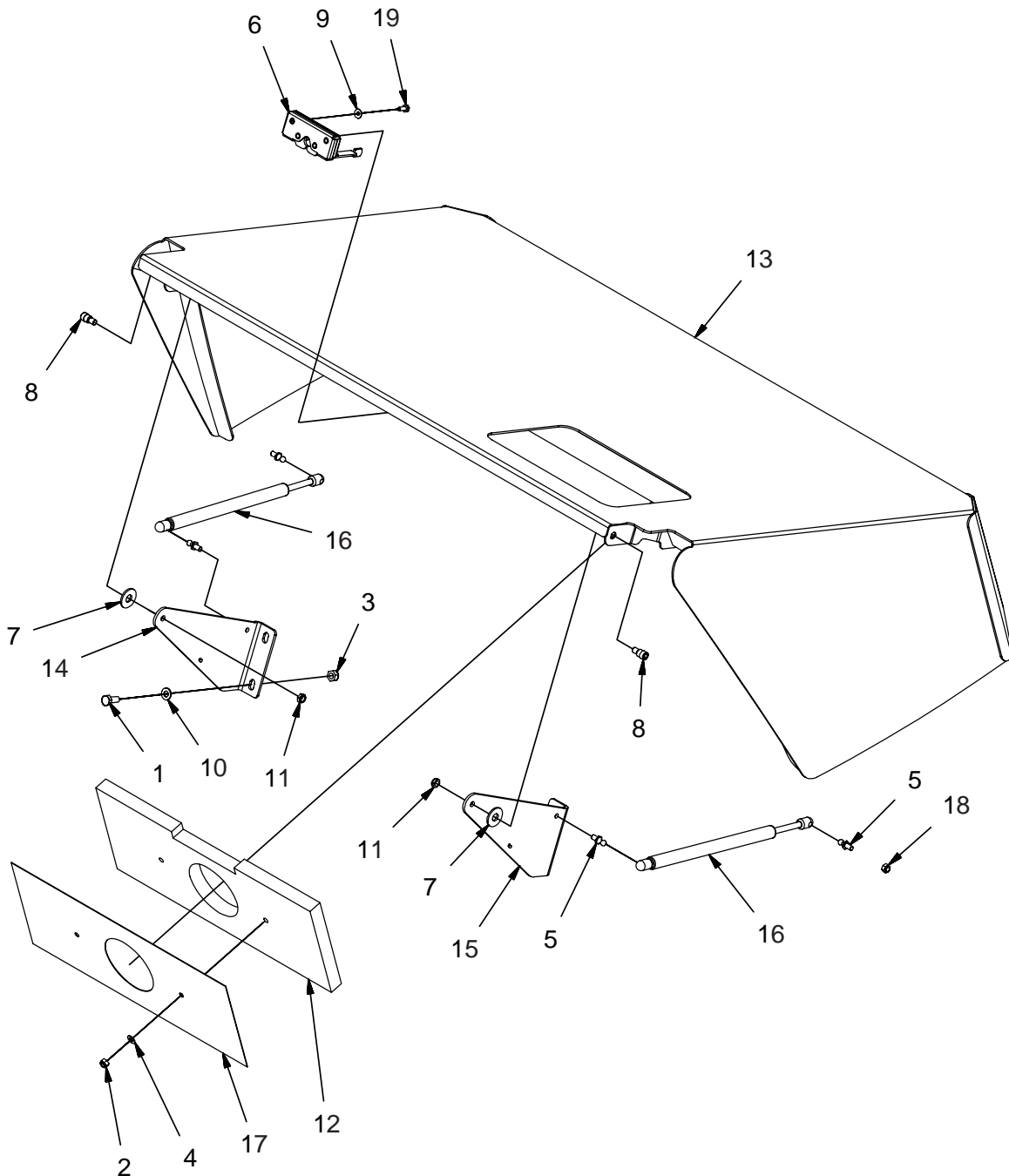
Parts List			
ITEM	PART NUMBER	QTY	DESCRIPTION
1	11132065	1	BOLT, M6-100 X 16 HH
2	3307248	1	STRIKER-LATCH
3	3400045	4	SCREW, #8-32 X .625 PAN HD ZP
4	3400082	4	NUT, FIBER INSERT #8-32
5	3400090	2	WASHER, FENDER, 1/4 ZP
6	3400394	1	NUT, 7/16-14 FLNG
7	600355	1	RETAINER, DOOR BAR SEAL
8	600522	1	FLAP, FILTER SEAL
9	600568	1	SWITCH, THERMOSTAT, 130
10	600581	9	CLAMP, WIRE CLIP
11	600810	1	PRE-FILTER PLATE
12	600913	2	BOLT, M6-100 X 20 HH SS
13	600933	3	NUT, M6-1.00 ESN SS
14	600965	6	FASTENER, PRESS-IN
15	REF.	-	HOPPER

**HOPPER DUMP DOOR**



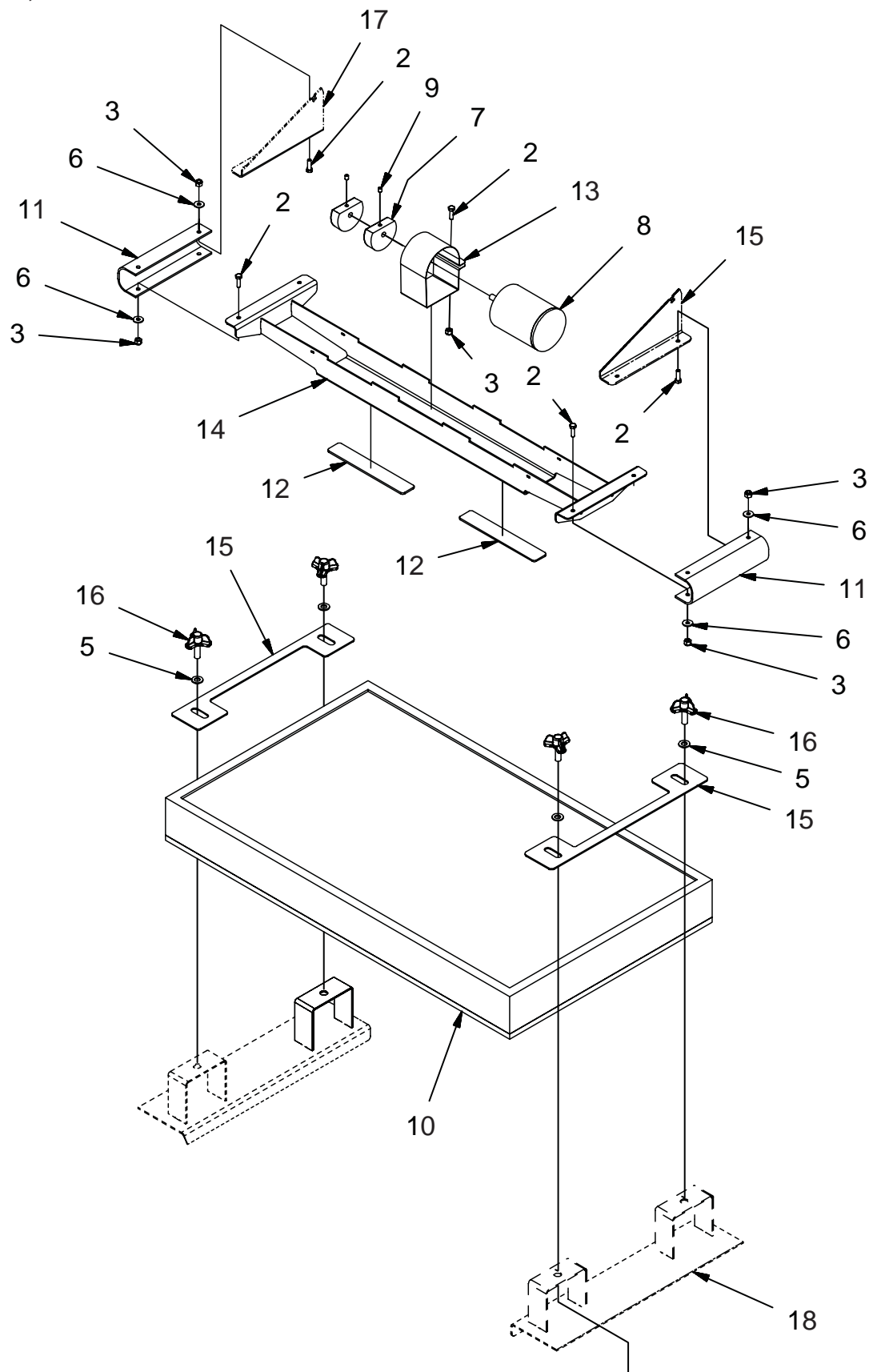
Parts List			
ITEM	PART NUMBER	QTY	DESCRIPTION
1	11038346	4	BOLT, M10-1.50 X 25 HH
2	12040036	2	NUT, M5 - 0.8 ESN
3	12040259	6	NUT, M8-1.25 ESN SS
4	12310025	2	WASHER, M5
5	3302407	2	FITTING, 90, 4 JIC - 4 O-RING
6	3308225	1	PIN, CLEVIS 1/2 X 2.00
7	3400384	4	WASHER, 5/16 BELLEVILLE
8	3400385	4	WASHER, 3/8. BELLEVILLE
9	3400788	1	PIN, CLEVIS 1/2 X 3.50
10	600106	1	CYLINDER, HOPPER DOOR
11	600174	2	BEARING, FIBERGLIDE 1.00 ID 1.25 T
12	600233	1	BULB, HOPPER DOOR
13	600234	1	SEAL, DUMP DOOR LIP
14	600235	2	SEAL, DUMP DOOR SIDE
15	600236	1	SEAL, DUMP DOOR BAR
16	600262	2	SEAL, LIP
17	600347	1	WELDMENT, DOOR, DUMP
18	600350	2	WELDMENT, PIVOT, HOPPER DOOR
19	600353	1	RETAINER, DOOR LIP SEAL
20	600354	2	RETAINER, DOOR SIDE SEAL
21	600355	1	RETAINER, DOOR BAR SEAL
22	600529	2	ARM, CYLINDER
23	600530-1	1	SWITCH, LIMIT
24	600578	2	RUE-RING, .50
25	600911	2	BOLT, M5-0.8 X 14 HH
26	600913	14	BOLT, M6-100 X 20 HH SS
27	600933	14	NUT, M6-1.00 ESN SS
28	600934	4	NUT, M8-1.25 FLNG
29	600936	4	NUT, M10-1.50 FLNG
30	717024	4	BOLT, M8-1.25 X 20 HH
31	717030	6	BOLT, M8-1.25 X 20 HH SS

HOPPER COVER



Parts List			
ITEM	PART NUMBER	QTY	DESCRIPTION
1	11038346	4	BOLT, M10-1.50 X 25 HH
2	12040051	2	NUT, M8-1.25 ESN
3	12040069	4	NUT, M10-1.50 ESN
4	12310041	2	WASHER, M8
5	3300376	4	STUD, 10MM BALL
6	3307246	1	LATCH, LH
7	3400086	2	WASHER, 1/2, 1.063 X .531 X .094
8	3400170	2	BOLT, SHOULDER .500 X .500
9	3400383	2	WASHER, 1/4 BELLEVILLE
10	3400385	4	WASHER, 3/8. BELLEVILLE
11	3401028	2	NUT, FIBER INSERT 3/8-16 JAM
12	600237	1	SEAL, HOPPER ACCESS DOOR
13	600238	1	WELDMENT, HOPPER COVER
14	600249	1	PIVOT, COVER, LH
15	600250	1	PIVOT, COVER, RH
16	600509	2	GAS STRUT, 23.0 EXT X 9.8 STK
17	600523	1	COVER, SEAL
18	711374	4	NUT, FIBER INSERT 5/16-18
19	713001	2	SCREW, 1/4-20 X .625 HHC

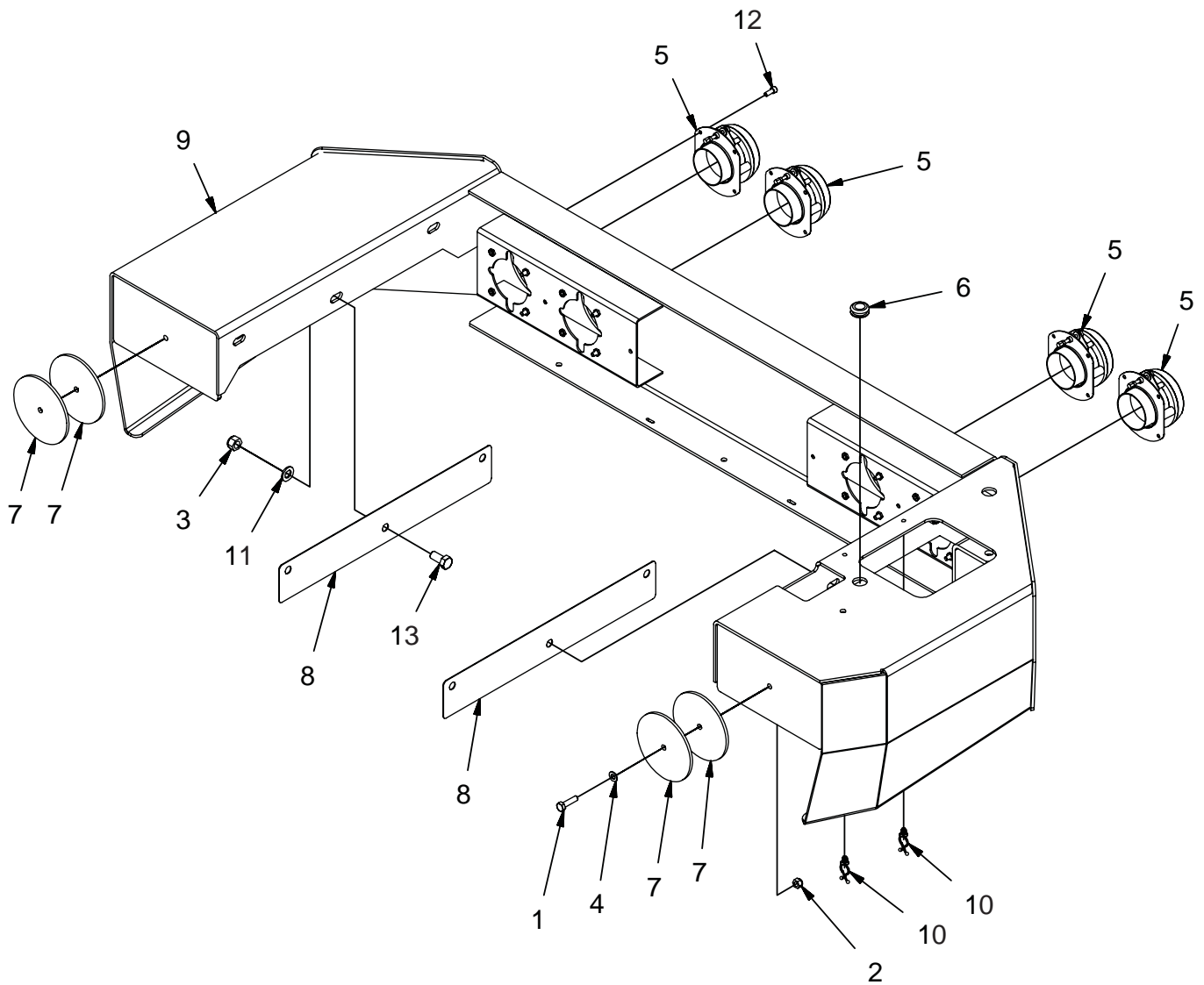
HOPPER FILTER, SHAKER



## PARTS BREAKDOWN

ITEM	PART NUMBER	QTY	DESCRIPTION
1	000710	1	ADHESIVE-3M #847 (USED ON 600229)
2	11038098	9	BOLT, M6-100 X 20 HH
3	12040044	9	NUT, M6-1.00 ESN
4	12040069	4	NUT, M10-1.50 ESN
5	12310058	4	WASHER, M10
6	12332011	8	WASHER, FENDER, M6
7	3301053	2	WEIGHT, ECCENTRIC PNTD
8	3342894	1	MOTOR, SHAKER FILTER
9	3400826	2	SETSCREW
10	600152	1	FILTER - PANEL
11	600228	2	HANGER, SHAKER
12	600229	2	PAD, DAMPER
13	600269	1	STRAP, MOTOR
14	600340	1	WELDMENT, SHAKER FRAME
15	600343	2	RETAINER, FILTER
16	600559	4	KNOB, 3-FINGER, M10 X 30
17	REF.	-	HOPPER COVER
18	REF.	-	HOPPER

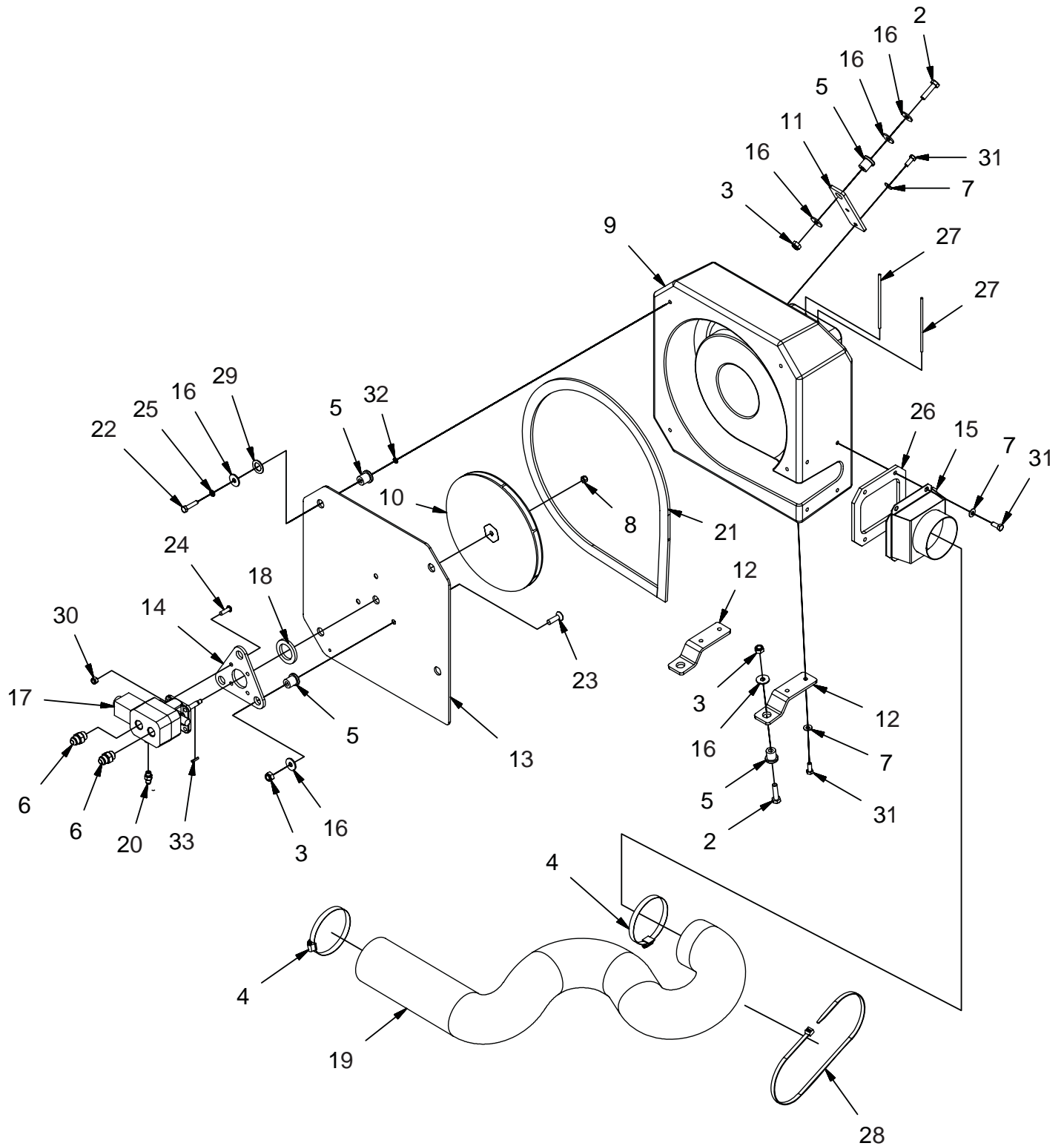
**BUMPER**





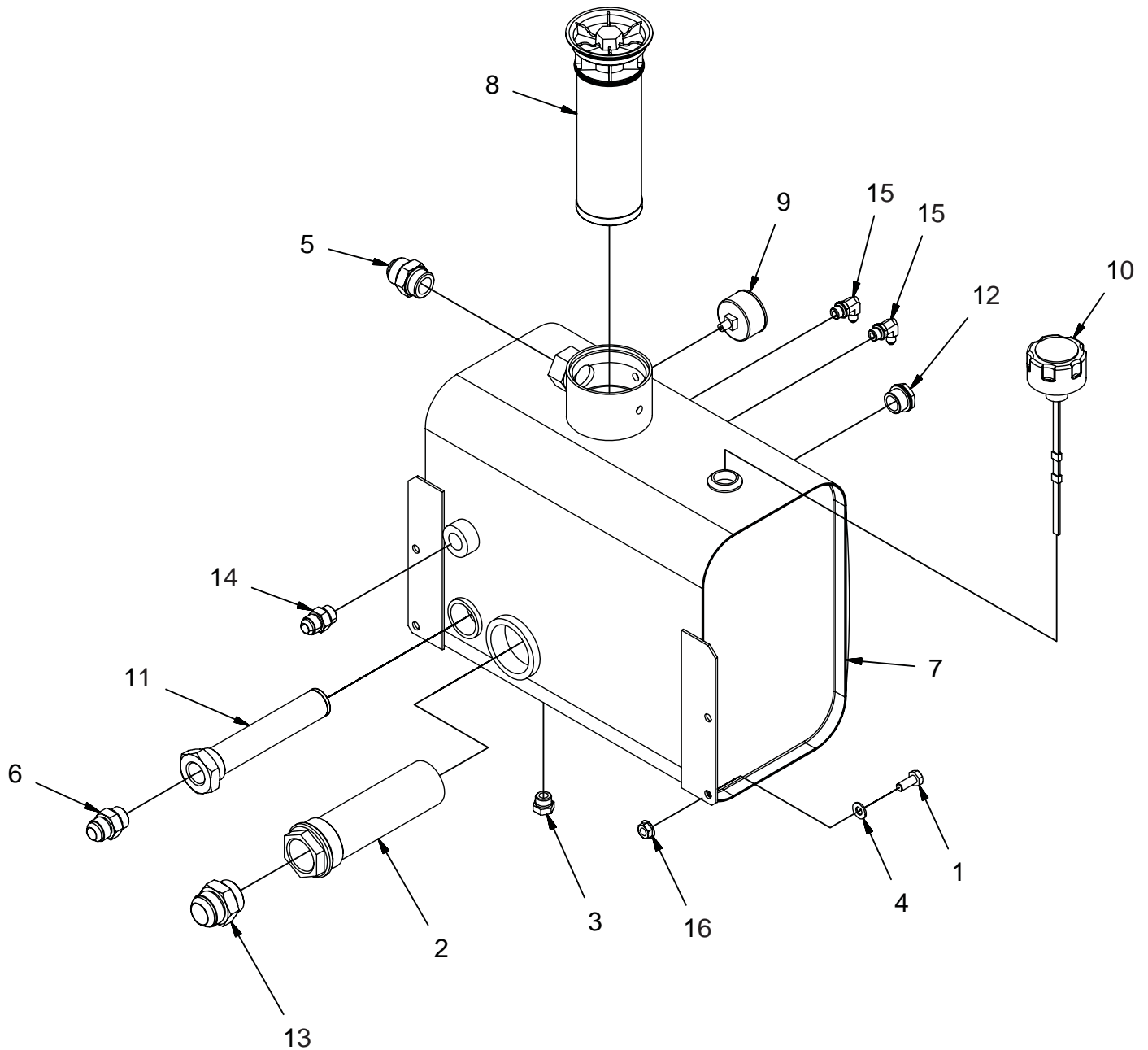
Parts List			
ITEM	PART NUMBER	QTY	DESCRIPTION
1	11038254	2	BOLT, M8-125 X 30 HH
2	12040051	2	NUT, M8-1.25 ESN
3	12040077	6	NUT-NYLOC M12-1.75 STL ZINC
4	12310041	2	WASHER, M8
5	3342287	4	LIGHT, HELA LAMP
6	600151	1	GROMMET, .63 ID .88 OD .25 T
7	600226	4	BUMPER
8	600268	2	SHIM, BUMPER
9	600280	1	WELDMENT, FRONT BUMPER
10	600581	2	CLAMP, WIRE CLIP
11	600950	6	WASHER, M12
12	600951	16	SCREW, M5-0.8 X 15 SHCS
13	600956	6	BOLT, M12-1.75 X 25 HH

IMPELLER



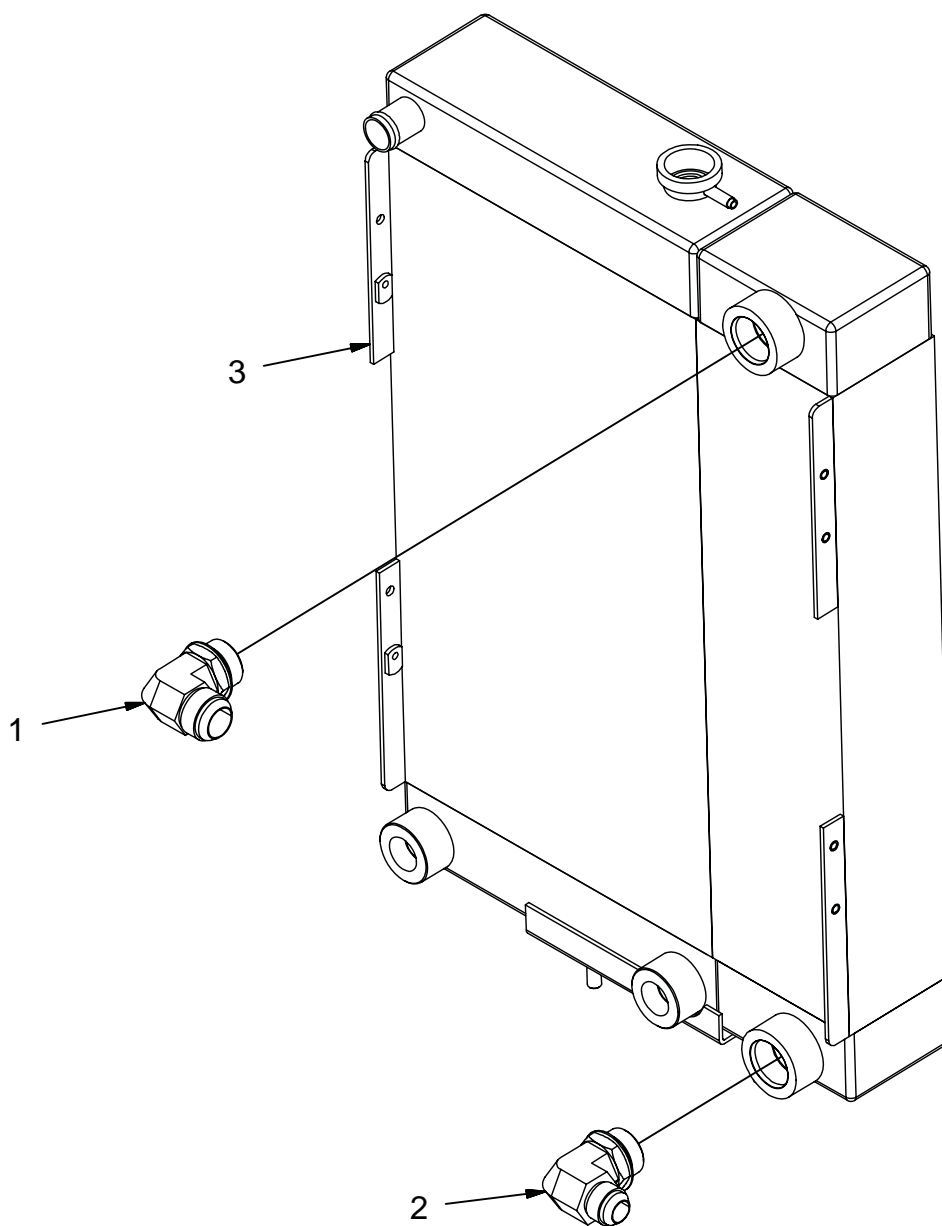
Parts List			
ITEM	PART NUMBER	QTY	DESCRIPTION
1	000710	-	ADHESIVE 3M #847 (USED ON 600903)
2	11038395	3	BOLT, M10-1.50 X 40 HH
3	12040069	6	NUT, M10-1.50 ESN
4	3300351	2	CLAMP, HOSE, 4.50
5	3300465	10	ISOLATOR, VIB
6	3304899	2	FITTING, STR, 8 JIC - 8 O-RING
7	3400384	10	WASHER, 5/16 BELLEVILLE
8	3400420	1	NUT, 5/16-24 ESN
9	600100	1	SHROUD, IMPELLER
10	600101	1	ASSY, IMPELLER
11	600202	1	BRACKET, SHROUD, UPPER
12	600203	2	BRACKET, SHROUD, LOWER
13	600204	1	PLATE, SHROUD
14	600205	1	PLATE, MOTOR MNT
15	600206	1	WELDMENT, DIFFUSER
16	600363	12	WASHER, ISOLATOR
17	600366	1	MOTOR, IMPELLER
18	600469	1	SEAL, DUST
19	600574	1	HOSE, 4.00 IMPELLER
20	600587	1	FITTING, STR, 4 JIC - 4 O-RING
21	600903	1	SEAL, IMPELLER
22	600918	4	BOLT, M8-125 X 35 HH
23	600954	3	SCREW, M10-1.50 X 35 FHMS
24	600958	4	BOLT, 5/16-18 X 1.00 BUTTON HD CAP
25	600959	4	LOCK WASHER, M8
26	620028	1	GASKET, OUTLET
27	620031	2	ROD, GUARD
28	620037	1	CABLE TIE, .35 X 34
29	66-431-A	4	WASHER, .77 B 1.25 OD .075 T
30	711374	4	NUT, FIBER INSERT 5/16-18
31	717024	10	BOLT, M8-1.25 X 20 HH
32	748922	4	SPACER, .368 ID .500 OD .06 T BRASS
33	PART OF 600366	1	KEY, .125 SQ X .75

HYDRAULIC RESERVOIR



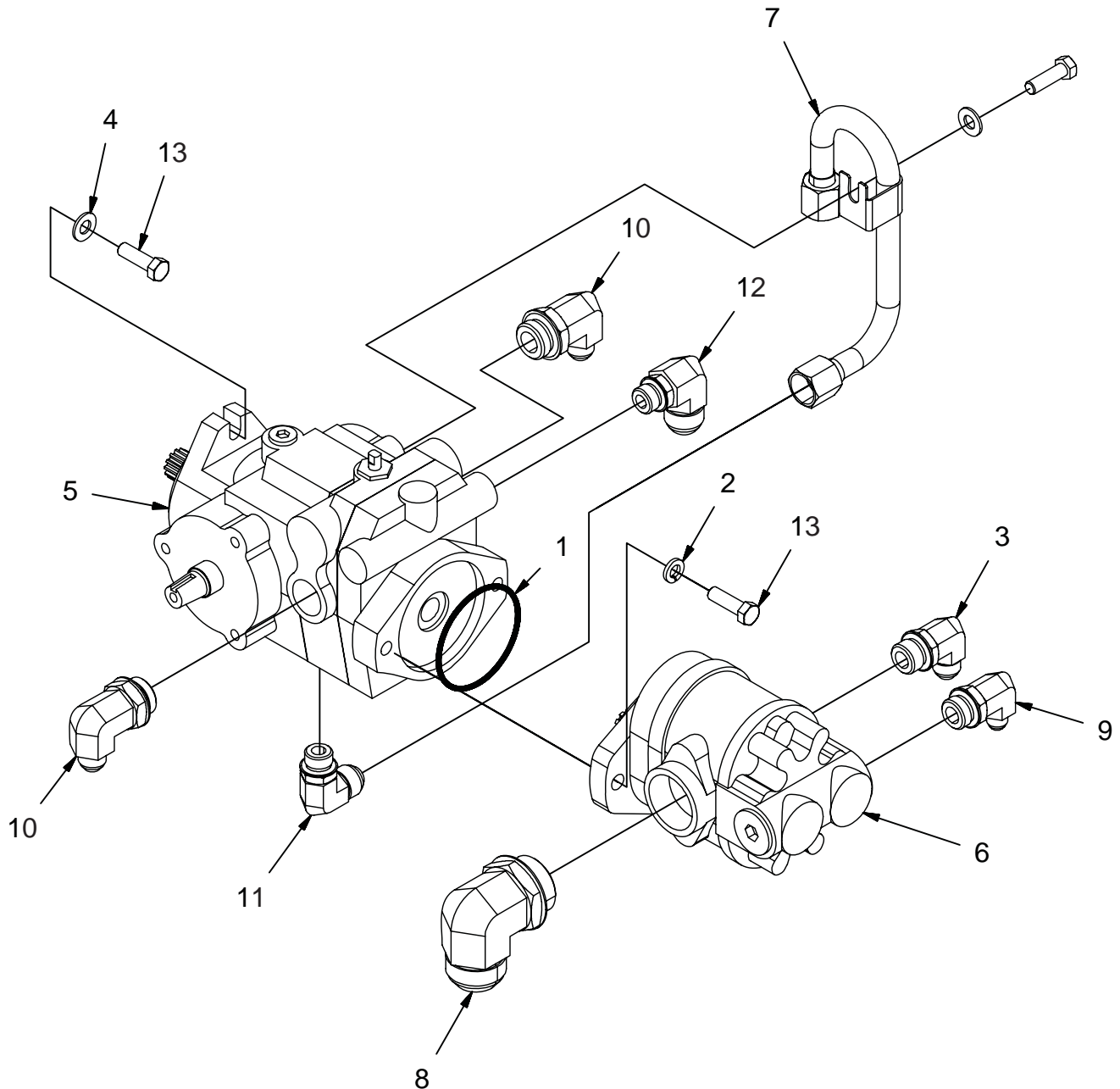
Parts List			
ITEM	PART NUMBER	QTY	DESCRIPTION
1	11038346	4	BOLT, M10-1.50 X 25 HH
2	3343836	1	STRAINER, HYDRAULIC, 20
3	3400164	1	FITTING, PLUG, 8 O-RING
4	3400385	4	WASHER, 3/8. BELLEVILLE
5	3400792	1	FITTING, STR, 16 JIC - 16 O-RING
6	3402002	1	FITTING, STR, 12 JIC - 12 O-RING
7	600180	1	TANK, HYD RESERVOIR
8	600182	1	FILTER ELEMENT, 10 MIC
9	600183	1	GAUGE, 0-60 PSI
10	600184	1	FILLER-BREATHING, 10 MIC
11	600185	1	STRAINER, 12
12	600531	1	SIGHT GAUGE
13	600585	1	FITTING, STR, 20 JIC - 20 O-RING
14	600586	1	FITTING, STR, 10 JIC - 10 O-RING
15	600596	2	FITTING, 90, 4 JIC - 6 O-RING
16	600936	4	NUT, M10-1.50 FLNG

OIL COOLER



Parts List			
ITEM	PART NUMBER	QTY	DESCRIPTION
1	600591	1	FITTING, 90, 16 JIC - 16 O-RING
2	600593	1	FITTING, 90, 12 JIC - 16 O-RING
3	REF	-	RADIATOR - OIL COOLER

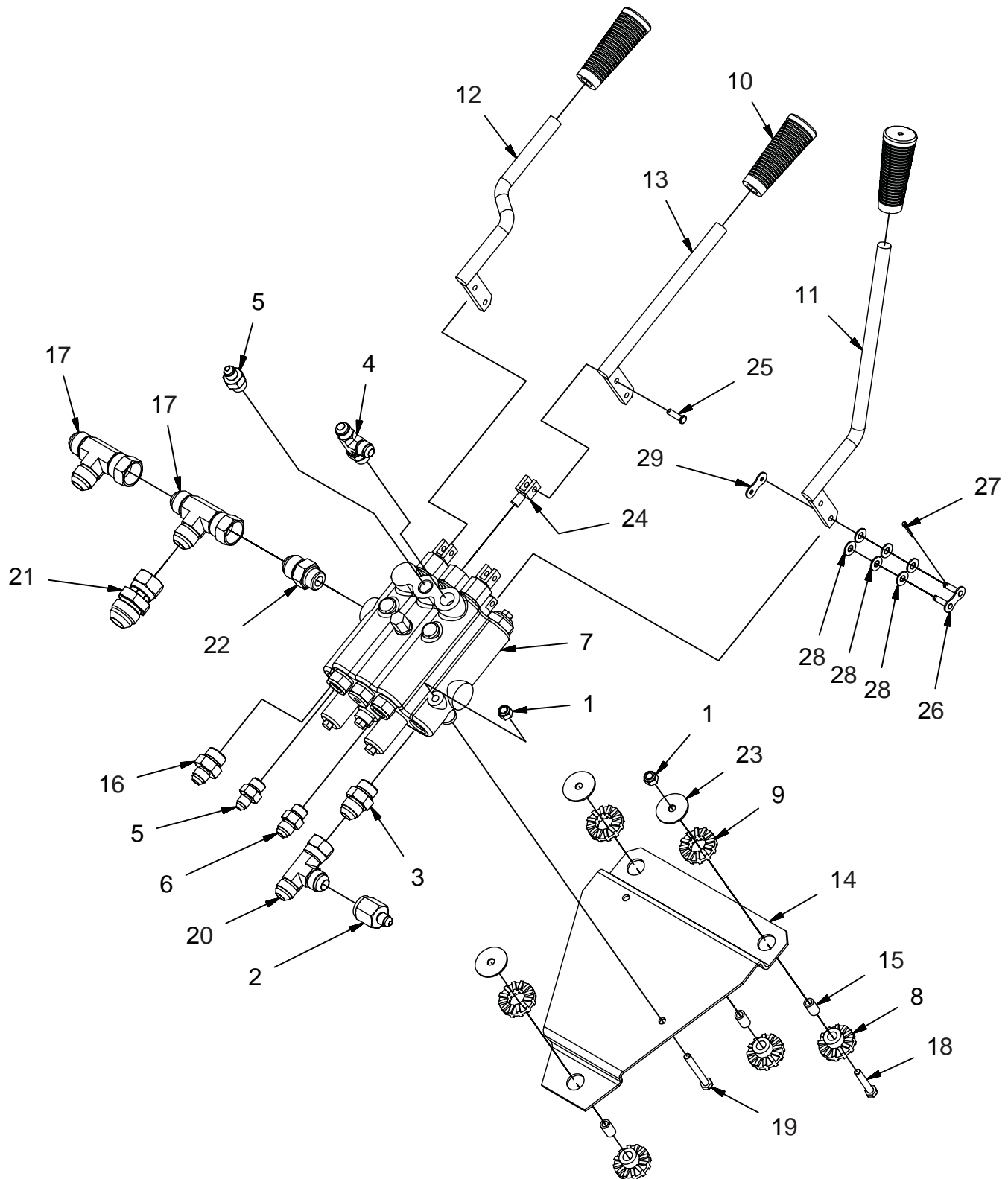
HYDRAULIC PUMP





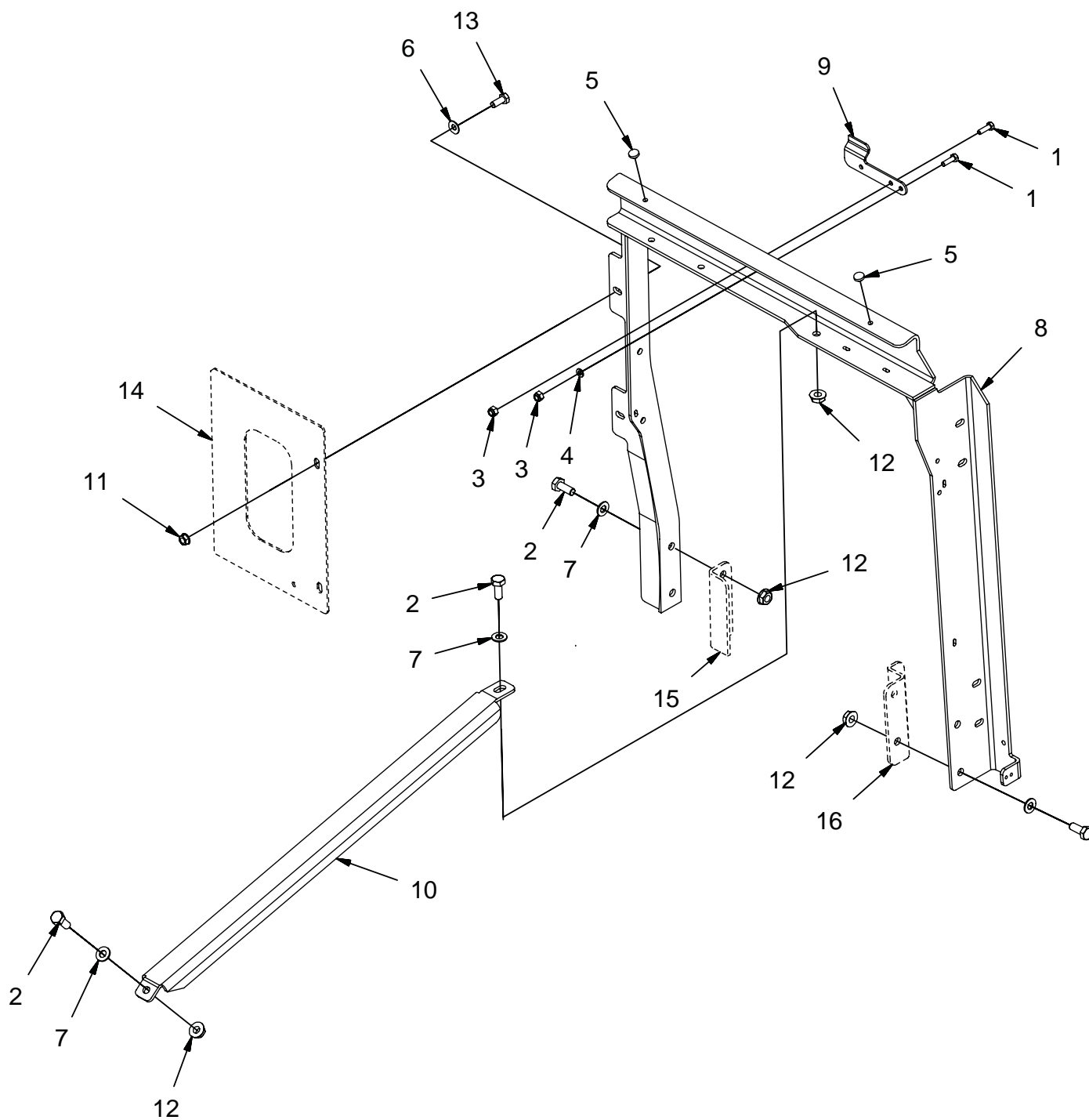
Parts List			
ITEM	PART NUMBER	QTY	DESCRIPTION
1	3303711	1	O-RING
2	3400101	2	LOCK WASHER, 3/8 HS MED
3	3400155	1	FITTING, 90, 8 JIC - 10 O-RING
4	3400385	2	WASHER, 3/8. BELLEVILLE
5	600215	1	PUMP, PROPULSION
6	600216	1	PUMP, AUX
7	600519	1	TUBE, PUMP DRAIN
8	600590	1	FITTING, 90, 20 JIC - 20 O-RING
9	600592	1	FITTING, 90, 6 JIC - 10 O-RING
10	600594	2	FITTING, 90, 8 JIC - 12 O-RING
11	600595	1	FITTING, 90, 10 JIC - 8 O-RING
12	620058	1	FITTING, 90, 12 JIC - 8 O-RING
13	713043	4	SCREW, 3/8-16 X 1.25 HH

## HYDRAULIC VALVE



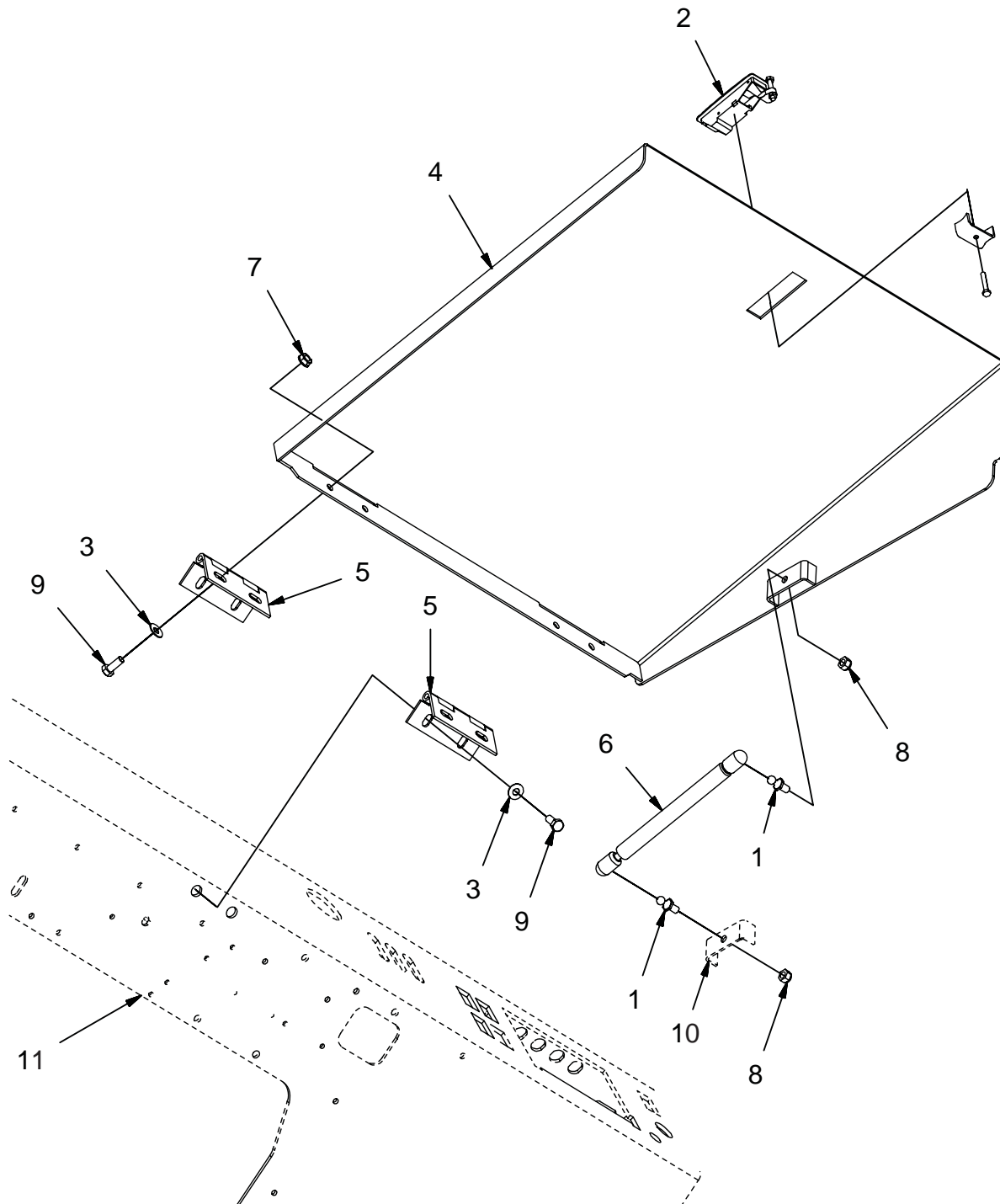
Parts List			
ITEM	PART NUMBER	QTY	DESCRIPTION
1	12040044	5	NUT, M6-1.00 ESN
2	3302408	1	FITTING, REDUCER, 8 JIC FEM SWIVEL - 4 JIC
3	3304899	1	FITTING, STR, 8 JIC - 8 O-RING
4	3338185	1	FITTING, RUN TEE, 6 JIC- 6 JIC - 6 O-RING
5	3400264	2	FITTING, STR, 4-6
6	3400635	1	FITTING, STR, 6 JIC - 6 O-RING
7	600214	1	HYDRAULIC VALVE. 3-SPOOL
8	600218	3	ISOLATOR, MALE
9	600219	3	ISOLATOR - FEMALE
10	600263	3	HANDLE GRIP, .50
11	600532	1	LEVER, SWEEP CONT
12	600535	1	LEVER, HOPPER DOOR
13	600537	1	LEVER, HOPPER
14	600539	1	PLATE, VALVE MNT
15	600541	3	SPACER, .245 B .375 OD .625 T
16	600589	1	FITTING, STR, 6 JIC - 8 O-RING
17	600597	2	FITTING, RUN TEE, 10 JIC - 10 JIC - 10 JIC FEM SWIVEL
18	600952	3	BOLT, M6-1.00 X 35 HH
19	600953	2	BOLT, M6-1.00 X 50 HH
20	600967	1	FITTING, RUN TEE, 8 JIC - 8 JIC - 8 JIC FEM SWIVEL
21	600996	1	FITTING, ADAPT, 12 JIC - 10 JIC FEM SWIVEL
22	600997	1	FITTING, STR, 10 JIC - 8 O-RING
23	620045	3	WASHER, .25 ID X 1.25 OD X .063 T
24	620140	3	CLEVIS, STEEL
25	620141	3	CLEVIS PIN, 3/16 X 3/4
26	620142	3	CHAIN LINK W/SPRING CLIP
27	620143	3	COTTERPIN, 5/64 X 1/2
28	711504	18	WASHER, .56 OD .253 ID .048 T SS
29	PART OF 620142	3	CHAIN LINK PLT

COVER FRAME



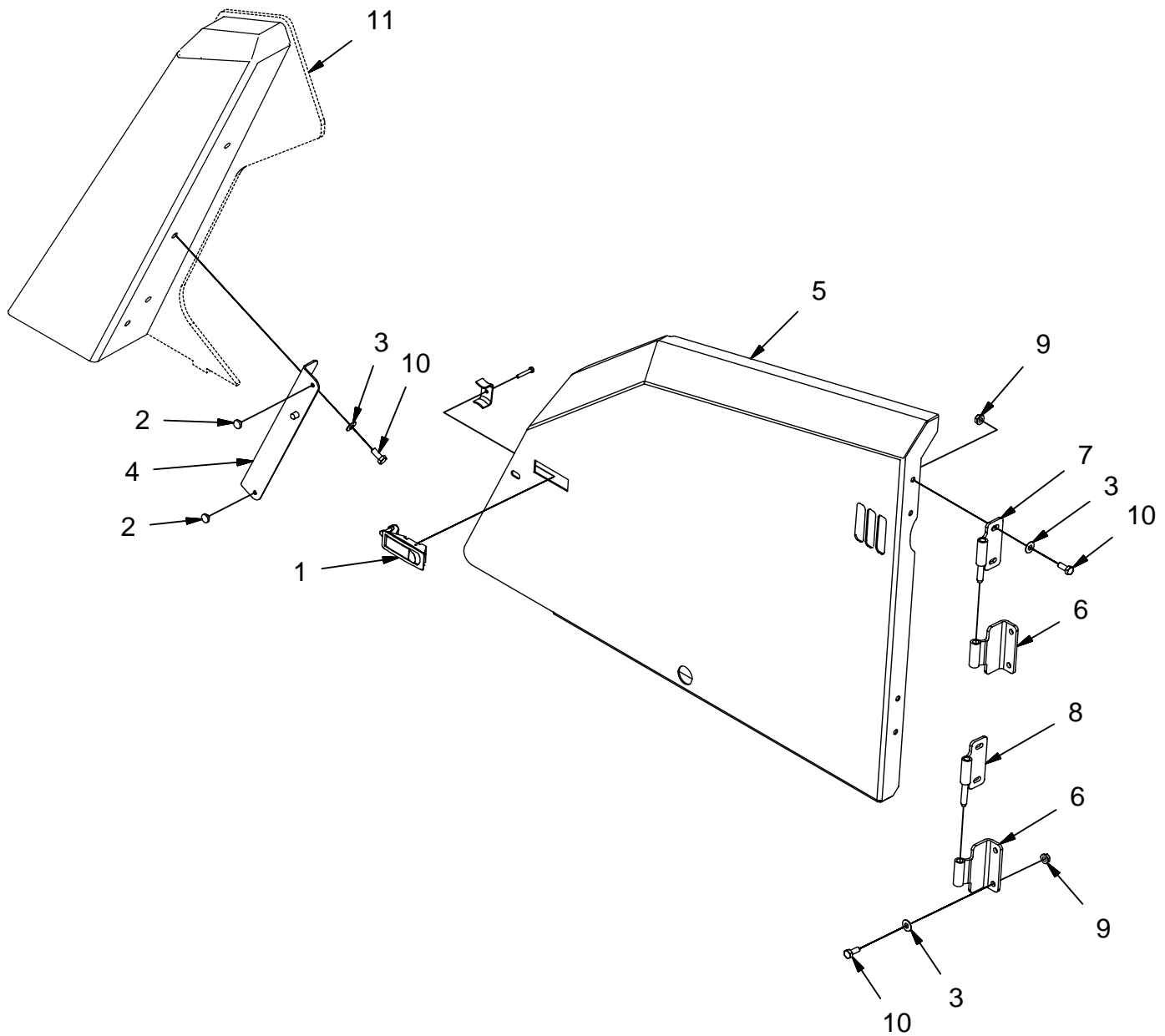
Parts List			
ITEM	PART NUMBER	QTY	DESCRIPTION
1	11038098	3	BOLT, M6-100 X 20 HH
2	11038346	6	BOLT, M10-1.50 X 25 HH
3	12040044	3	NUT, M6-1.00 ESN
4	12310033	2	WASHER, M6
5	3300526	2	BUMPER, .25 ID .125 T
6	3400384	2	WASHER, 5/16 BELLEVILLE
7	3400385	6	WASHER, 3/8. BELLEVILLE
8	600356	1	WELDMENT, COVER FRAME
9	600362	1	HINGE LOCK
10	600367	1	CHANNEL, SUPPORT
11	600934	2	NUT, M8-1.25 FLNG
12	600936	6	NUT, M10-1.50 FLNG
13	717024	2	BOLT, M8-1.25 X 20 HH
14	REF	-	CONSOLE
15	REF	-	FRAME
16	REF	-	FRAME

TOP COVER



Parts List			
ITEM	PART NUMBER	QTY	DESCRIPTION
1	3300376	2	STUD, 10MM BALL
2	3300380	1	LATCH ASSY
3	3400384	8	WASHER, 5/16 BELLEVILLE
4	600165	1	WELDMENT, TOP COVER
5	600369	2	HINGE, 4"
6	600508	1	GAS STRUT
7	600934	4	NUT, M8-1.25 FLNG
8	711374	2	NUT, FIBER INSERT 5/16-18
9	717024	8	BOLT, M8-1.25 X 20 HH
10	REF.	-	CONSOLE
11	REF.	-	FRAME

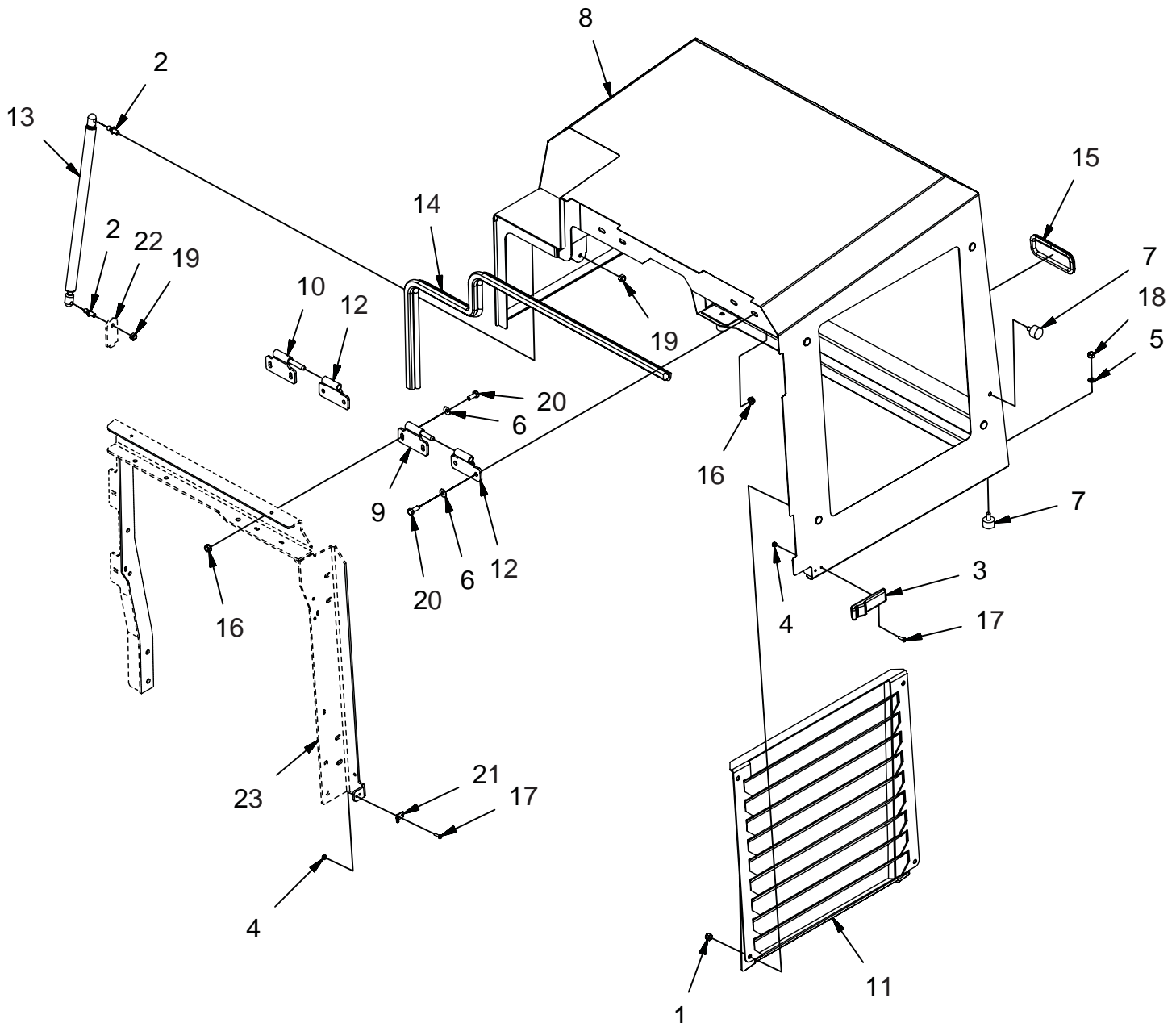
SIDE DOOR





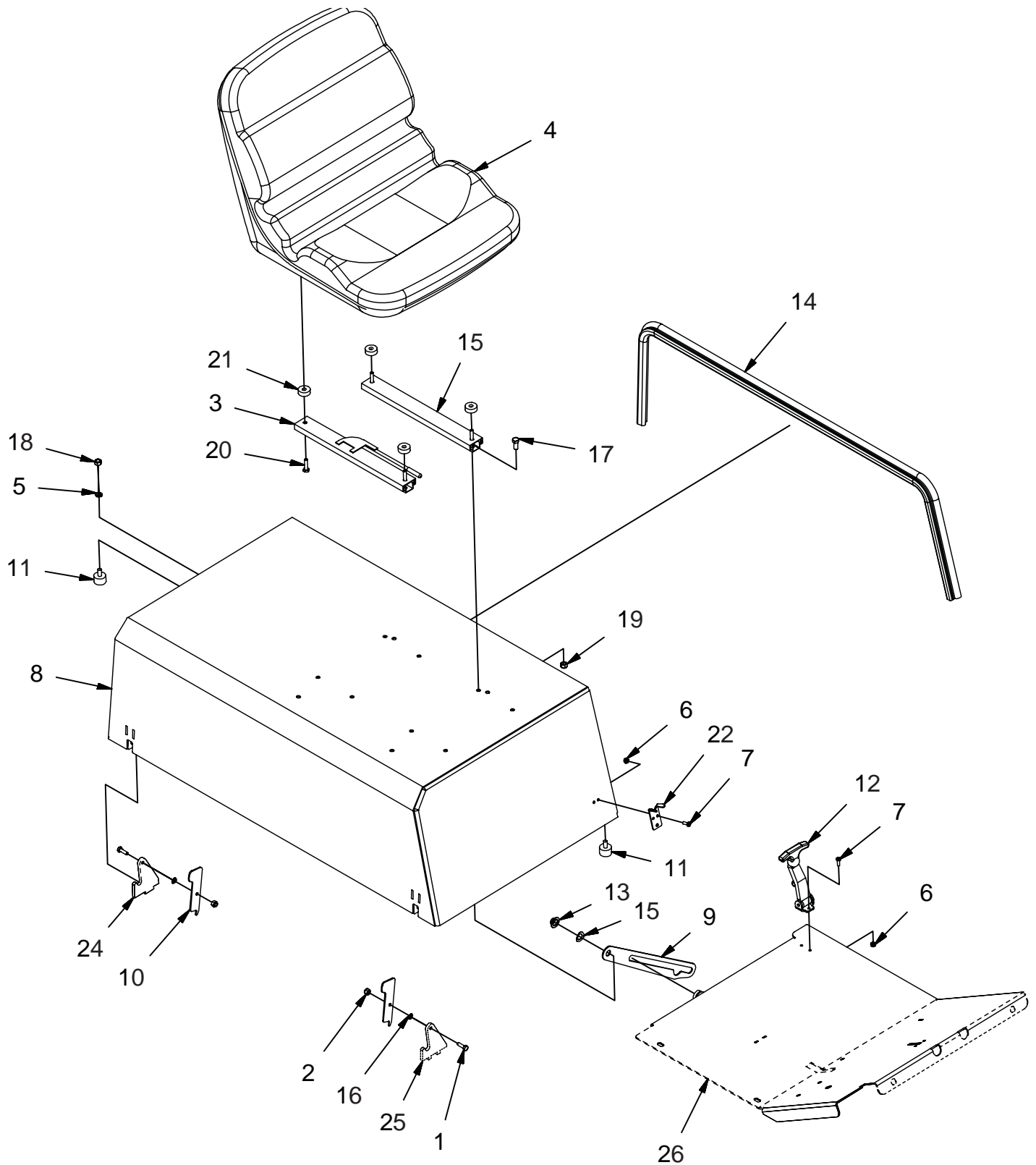
Parts List			
ITEM	PART NUMBER	QTY	DESCRIPTION
1	3300380	1	LATCH ASSY
2	3300526	2	BUMPER, .25 ID .125 T
3	3400384	10	WASHER, 5/16 BELLEVILLE
4	600170	1	WELDMENT, DOOR STRIKER
5	600364	1	SIDE DOOR
6	600377	2	WELDMENT, HINGE, FEM
7	600380	1	WELDMENT, HINGE, MALE
8	600383	1	WELDMENT, HINGE, MALE, LG
9	600934	8	NUT, M8-1.25 FLNG
10	717024	10	BOLT, M8-1.25 X 20 HH
11	REF.	-	FRAME

ENGINE COVER



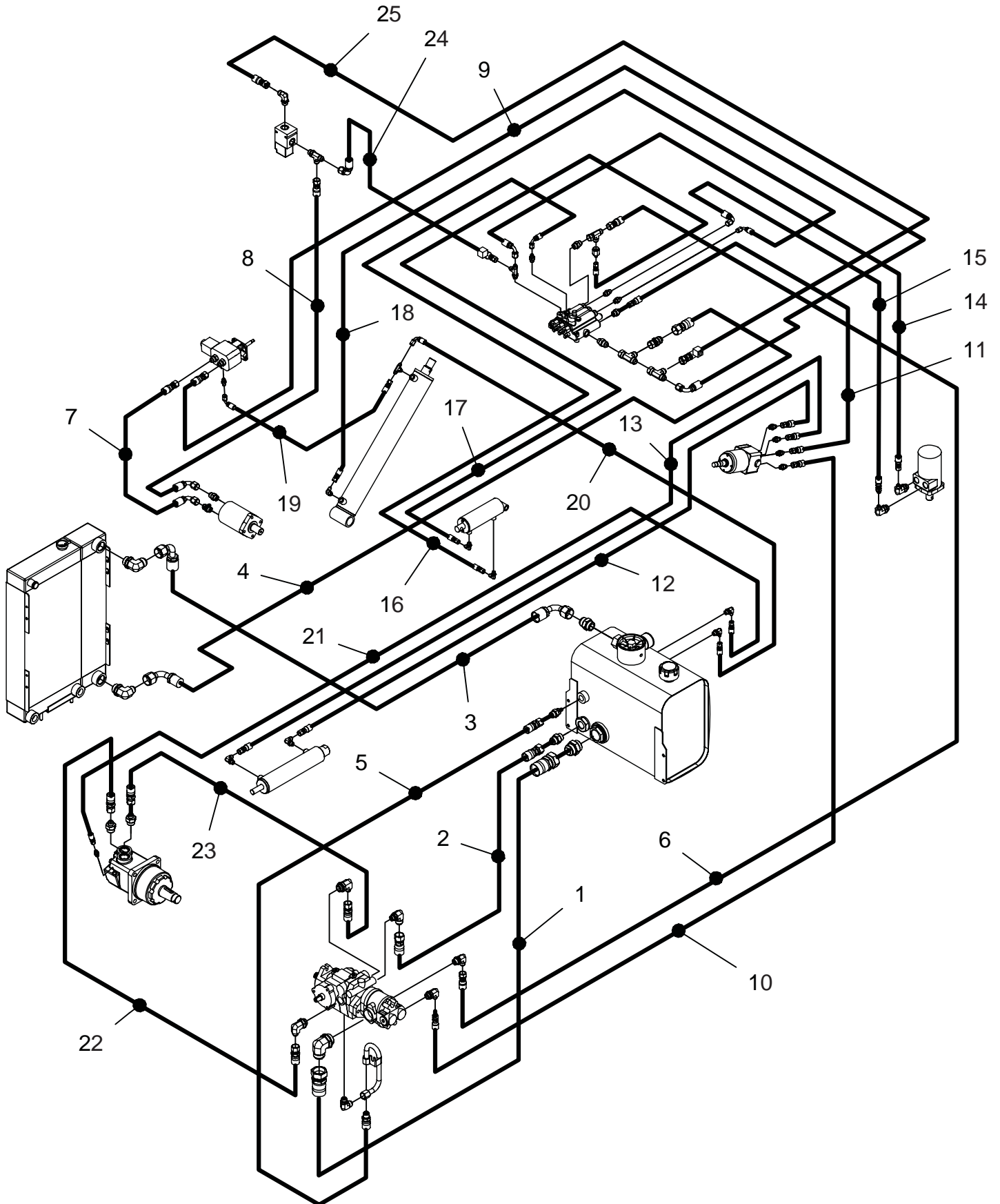
Parts List			
ITEM	PART NUMBER	QTY	DESCRIPTION
1	12040051	4	NUT, M8-1.25 ESN
2	3300376	2	STUD, 10MM BALL
3	3307719	1	DRAW LATCH
4	3400082	4	NUT, FIBER INSERT #8-32
5	3400102	3	LOCK WASHER, 5/16 HS MED
6	3400384	8	WASHER, 5/16 BELLEVILLE
7	600220	3	BUMPER, 1.00 X .625 T
8	600370	1	WELDMENT, ENGINE COVER
9	600380	1	WELDMENT, HINGE, MALE
10	600383	1	WELDMENT, HINGE, MALE, LG
11	600470	1	WELDMENT, GRILL
12	600484	2	WELDMENT, HINGE, FEM
13	600507	1	GAS STRUT, 30.9 EXT X 13.8 STK
14	600567	1	EDGING, ENG COVER
15	600582	1	EDGING
16	600934	8	NUT, M8-1.25 FLNG
17	710230	4	SCREW, #8-32 X .62 PAN HD
18	711319	3	NUT, HEX 5/16-18
19	711374	2	NUT, FIBER INSERT 5/16-18
20	717024	8	BOLT, M8-1.25 X 20 HH
21	PART OF 3307719	1	KEEPER
22	REF	-	FRAME
23	REF	-	COVER FRAME

PUMP COVER AND DRIVERS SEAT



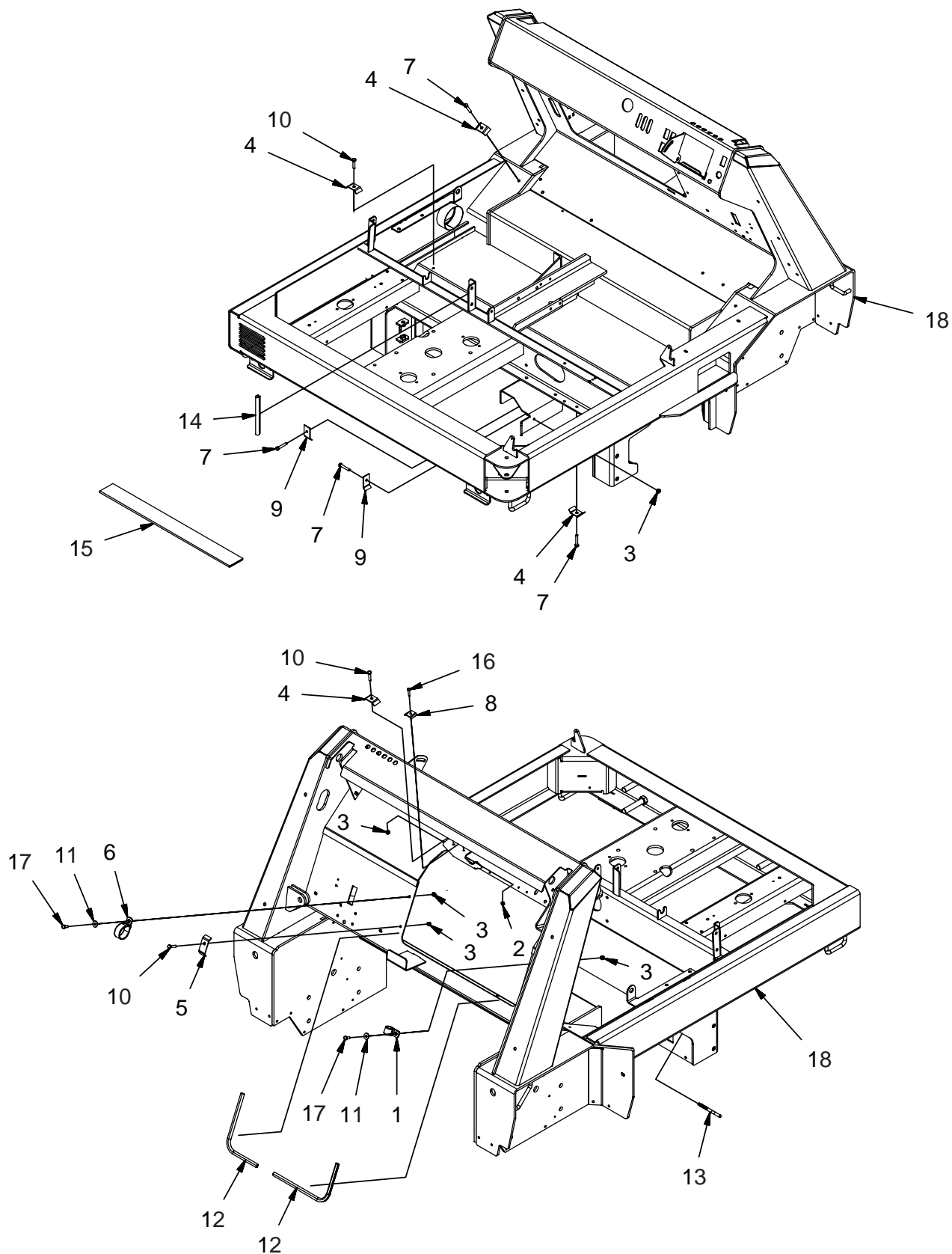
Parts List			
ITEM	PART NUMBER	QTY	DESCRIPTION
1	11038098	2	BOLT, M6-100 X 20 HH
2	12040044	2	NUT, M6-1.00 ESN
3	3316891	1	SEAT SLIDE KIT
4	3343778	1	SEAT, (MICHI V-2805 SERIG)
5	3400102	2	LOCK WASHER, 5/16 HS MED
6	3400172	4	NUT, 10-32 ESN
7	3400204	4	SCREW, #10-32 X .625 PAN HD ZP
8	600155	1	WELDMENT, PUMP COVER
9	600193	1	RETAINER, COVER
10	600194	2	LATCH, COVER
11	600220	2	BUMPER, 1.00 X .625 T
12	600265	1	LATCH, T-HANDLE
13	600524	1	AXLE CAP NUT, .500
14	600819	1	EDGING, HOPPER ACCESS
15	600948	1	WASHER, .50 CURVED SPRING
16	600963	2	WASHER, M6, CURVED SPRING
17	711228	4	SCREW, 5/16-18 X .750 HHC
18	711319	2	NUT, HEX 5/16-18
19	711374	4	NUT, FIBER INSERT 5/16-18
20	713003	4	SCREW, 1/4-20 X 1.00 HH
21	PART OF 3316891	4	SPACER, SEAT
22	PART OF 600265	1	KEEPER
23	PART OF 600265	1	LATCH BASE
24	REF.	1	FRAME
25	REF.	1	FRAME
26	REF.	1	FLOOR

HYDRAULIC HOSE



Parts List			
ITEM	PART NUMBER	QTY	DESCRIPTION
1	600968	1	HOSE, 20 STR - 20 STR SUC (RES TO AUX)
2	600969	1	HOSE, 12 STR - 12 STR SUC (RES TO CASE)
3	620084	1	HOSE, 16 90 - 16 90 RET (COOLER TO RES)
4	600971	1	HOSE, 12 STR - 12 90 RET (VALVE TO COOLER)
5	600972	1	HOSE, 10 STR - 10 STR MALE RET (CASE TO RES)
6	600973	1	HOSE, 8 STR - 8 STR MED (AUX TO VALVE)
7	600974	1	HOSE, 8 STR - 8 90 MED (MB TO IMP)
8	600975	1	HOSE, 8 STR - 8 90 MED (SOLENOID TO MB)
9	600977	1	HOSE, 8 STR - 10 90 MED (IMP TO VALVE RET)
10	600978	1	HOSE, 6 STR - 6 STR MED (AUX TO STR PRESS)
11	600979	1	HOSE, 6 STR - 6 STR MED (STR TO VALVE RET)
12	600980	1	HOSE, 6 STR - 6 STR MED (STR TO CYL F)
13	600981	1	HOSE, 6 STR - 6 STR MED (STR TO CYL R)
14	600982	1	HOSE, 6 STR - 6 90 MED (SB TO MB THRU VALVE)
15	600983	1	HOSE, 6 STR - 6 90 MED (VALVE TO SB)
16	600984	1	HOSE, 4 STR - 4 90 MED (VALVE TO DOOR CYL F)
17	600985	1	HOSE, 4 STR - 4 STR MED (VALVE TO DOOR CYL R)
18	600986	1	HOSE, 4 STR - 4 90 MED (VALVE TO LIFT CYL L)
19	600987	1	HOSE, 4 STR - 4 90 RET (IMP TO LIFT CYL U)
20	600988	1	HOSE, 4 STR - 4 STR RET (LIFT CYL U TO RES)
21	600989	1	HOSE, 4 STR - 4 STR RET (WM CASE TO RES)
22	600990	1	HOSE, 8 STR - 8 STR SPCL (VDP R TO WM R)
23	600991	1	HOSE, 8 STR - 8 STR SPCL (VDP F TO WM L)
24	620121	1	HOSE, 6 STR - 8 90 MED (VALVE OUT TO SOLENOID)
25	620122	1	HOSE, 8 STR - 10 STR MED (SOLENOID TO VALVE RET)

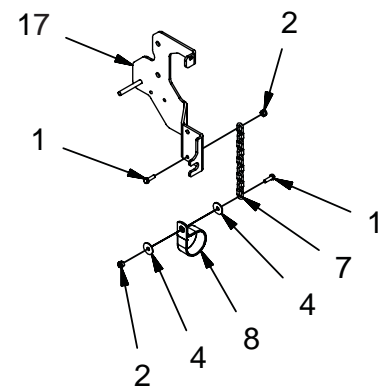
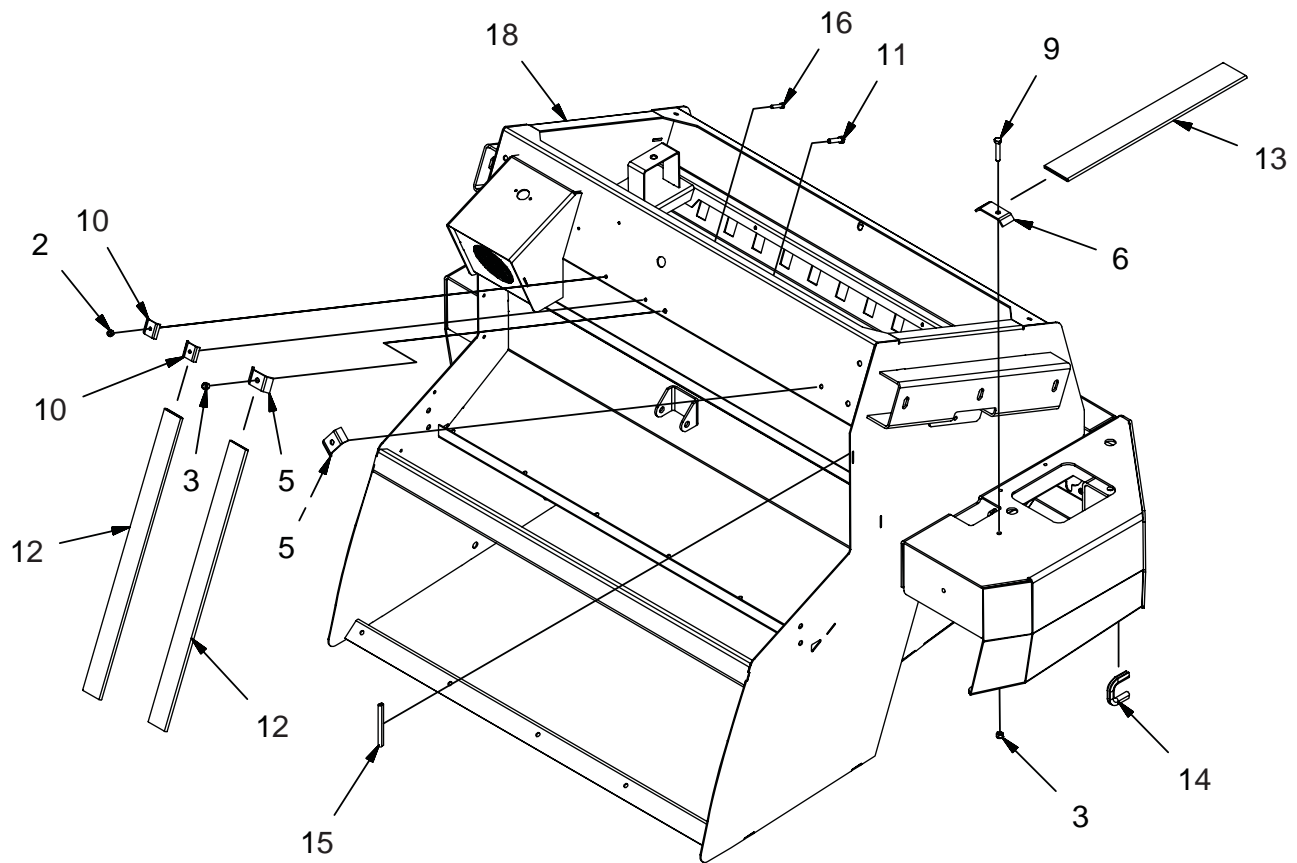
**HOSE CLAMP - GAS, LPG AND DIESEL**





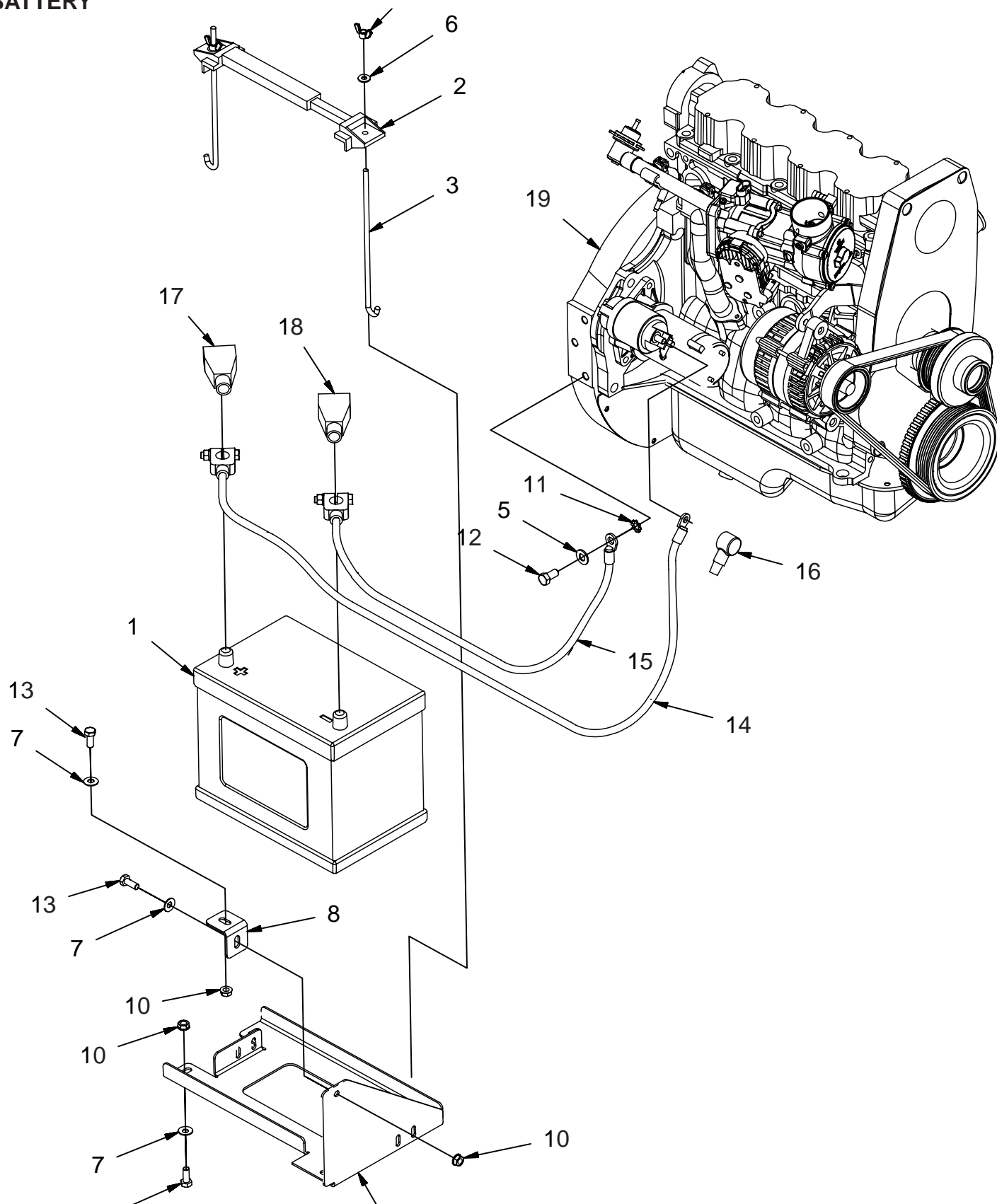
Parts List			
ITEM	PART NUMBER	QTY	DESCRIPTION
1	3400999	1	CLAMP, HOSE
2	12040044	1	NUT, M6-1.00 ESN
3	12040051	9	NUT, M8-1.25 ESN
4	3301437	4	RETAINER, HOSE, SYM, 8
5	3305398	1	RETAINER, HOSE, OFFSET, 8
6	3402005	1	CLAMP, 2"
7	600820	4	BOLT, M8-1.25 X 45 HH
8	600822	1	RETAINER, HOSE, SYM, 6
9	600823	2	RETAINER, HOSE, OFFSET, 8
10	600918	3	BOLT, M8-1.25 X 35 HH
11	600940	2	WASHER, M8 FENDER
12	620038	2	EDGING, 3/16 X 15.0"
13	620039	1	EDGING, 3/16 X 5.75"
14	620040	1	EDGING, 5/16 X 7.0"
15	620043	1	SLEEVE, AS-B-33 X 28.0"
16	717021	1	BOLT, M6-1.00 X 30 HH
17	717024	2	BOLT, M8-1.25 X 20 HH
18	REF	-	WELDMENT, FRAME

HOSE CLAMP - DIESEL



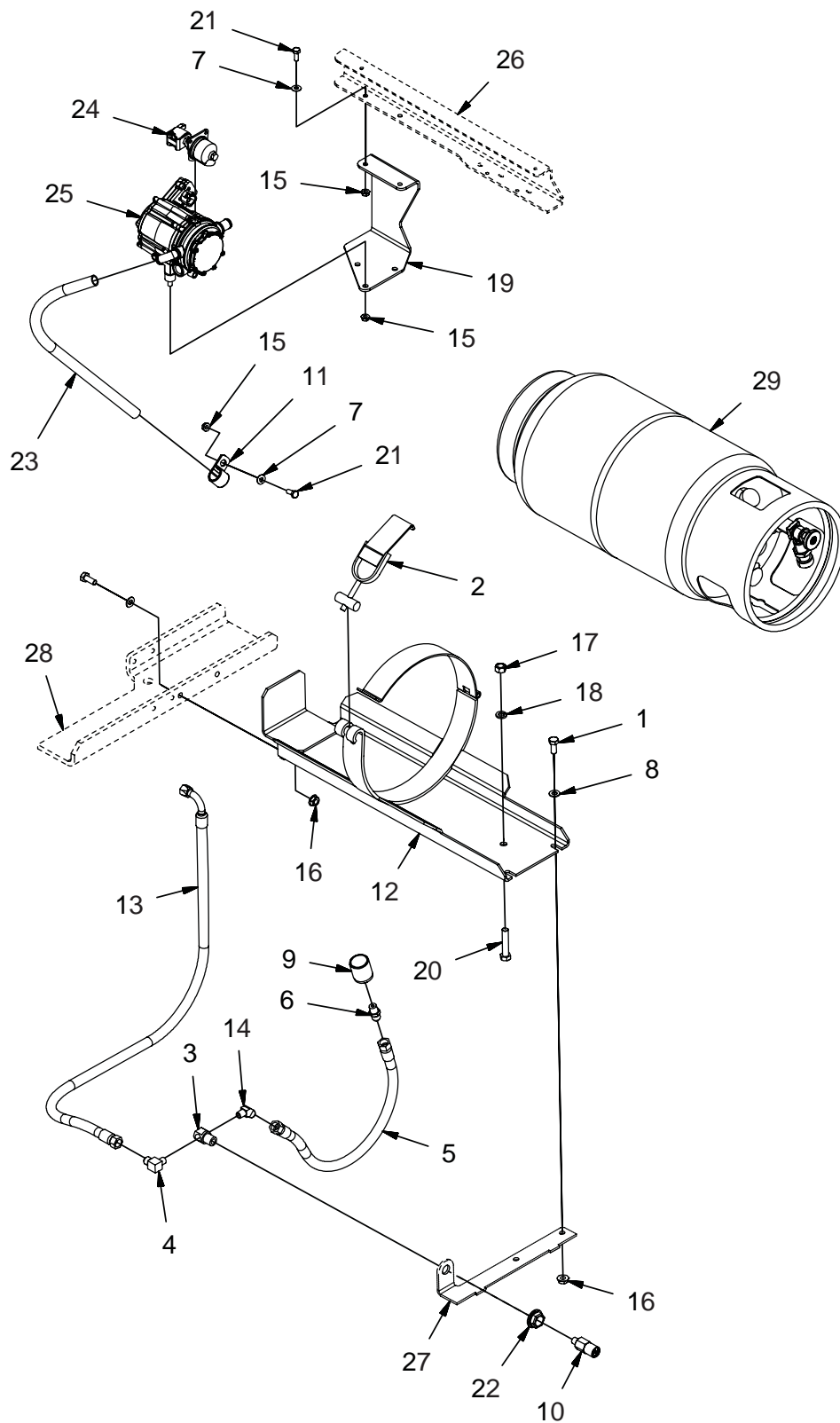
Parts List			
ITEM	PART NUMBER	QTY	DESCRIPTION
1	11038098	2	BOLT, M6-100 X 20 HH
2	12040044	4	NUT, M6-1.00 ESN
3	12040051	3	NUT, M8-1.25 ESN
4	12347027	2	WASHER, M6 FENDER
5	3301437	2	RETAINER, HOSE, SYM, 8
6	3305398	1	RETAINER, HOSE, OFFSET, 8
7	3307658	1	CHAIN, GROUND
8	3343539	1	CLAMP, 2"
9	600820	1	BOLT, M8-1.25 X 45 HH
10	600822	2	RETAINER, HOSE, SYM, 6
11	600918	2	BOLT, M8-125 X 35 HH
12	620041	2	SLEEVE, AS-B-17 X 24.5"
13	620042	1	SLEEVE, AS-B-27 X 20.0"
14	620046	1	EDGING, 3/16 X 4.75"
15	620120	1	EDGING, 4"
16	717021	2	BOLT, M6-100 X 30 HH
17	REF.	-	CAM MOUNT
18	REF.	-	HOPPER

BATTERY



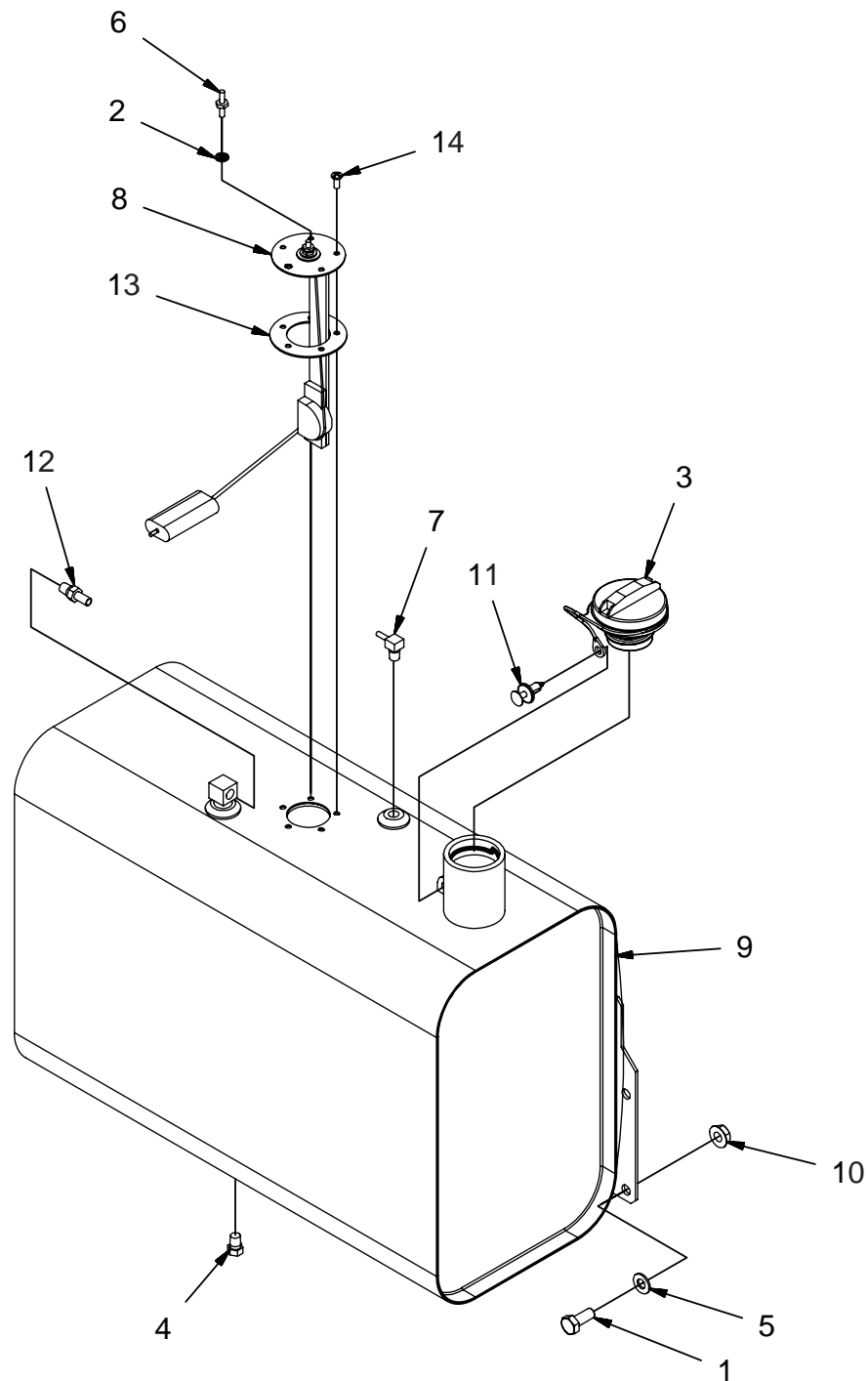
Parts List			
ITEM	PART NUMBER	QTY	DESCRIPTION
1	3300440	1	BATTERY, 12V
2	3301076	1	HOLD DOWN, BATTERY
3	3301079	2	ROD, BATTERY TIE DOWN
4	3400085	2	WING NUT, 1/4-20 ZP
5	3400087	1	WASHER, 3/8
6	3400089	2	WASHER, 1/4 .625 X .281 X .063
7	3400384	5	WASHER, 5/16 BELLEVILLE
8	600512	1	CLIP
9	600513	1	BATTERY TRAY
10	600934	5	NUT, M8-1.25 FLNG
11	600946	1	LOCK WASHER, 3/8 INT STAR
12	713041	1	SCREW, 3/8-16 X .750 HHC
13	717024	5	BOLT, M8-1.25 X 20 HH
14	748901	1	CABLE, BATTERY, POS
15	748902	1	CABLE, BATTERY, NEG
16	PART OF 748901	1	BOOT, TERM, RED
17	PART OF 748901	1	BOOT, BATTERY, RED
18	PART OF 748902	1	BOOT, BATTERY, BLACK
19	REF.	-	ENGINE

LPG TANK MOUNT



Parts List			
ITEM	PART NUMBER	QTY	DESCRIPTION
1	11038346	4	BOLT, M10-1.50 X 25 HH
2	220131	1	BUCKLE
3	3316511	1	BOD, VALVE MOUNT
4	3334037	1	FITTING, 90, BRASS, LPG
5	3335375	1	HOSE, LPG, TO TANK
6	3342097	1	FTG SAE 5/8-18 45 DEGREE FLARE
7	3400384	3	WASHER, 5/16 BELLEVILLE
8	3400385	4	WASHER, 3/8. BELLEVILLE
9	3400860	1	FTG-LP TANK CONNECT
10	3400862	1	LPG RELIEF VALVE
11	3400999	1	CLAMP, HOSE
12	600459	1	WELDMENT, LPG MNT
13	600906	1	HOSE, LPG, TO ENG
14	600908	1	FITTING, 45, BRASS, LPG
15	600934	6	NUT, M8-1.25 FLNG
16	600936	4	NUT, M10-1.50 FLNG
17	600949	1	NUT, M12-1.75
18	600961	1	LOCK WASHER, M12
19	600994	1	MOUNT, VAPORIZER
20	620036	1	BOLT, M12-1.75 X 60 HH FULL THREAD
21	717024	3	BOLT, M8-1.25 X 20 HH
22	PART OF 3316511	1	NUT, VALVE MOUNT
23	PART OF ENGINE	1	HOSE, WATER RETURN
24	REF	-	SOLENOID
25	REF	-	VAPORIZER
26	REF	-	COVER FRAME
27	REF	-	FRAME
28	REF	-	FRAME
29	REF	-	TANK, LPG

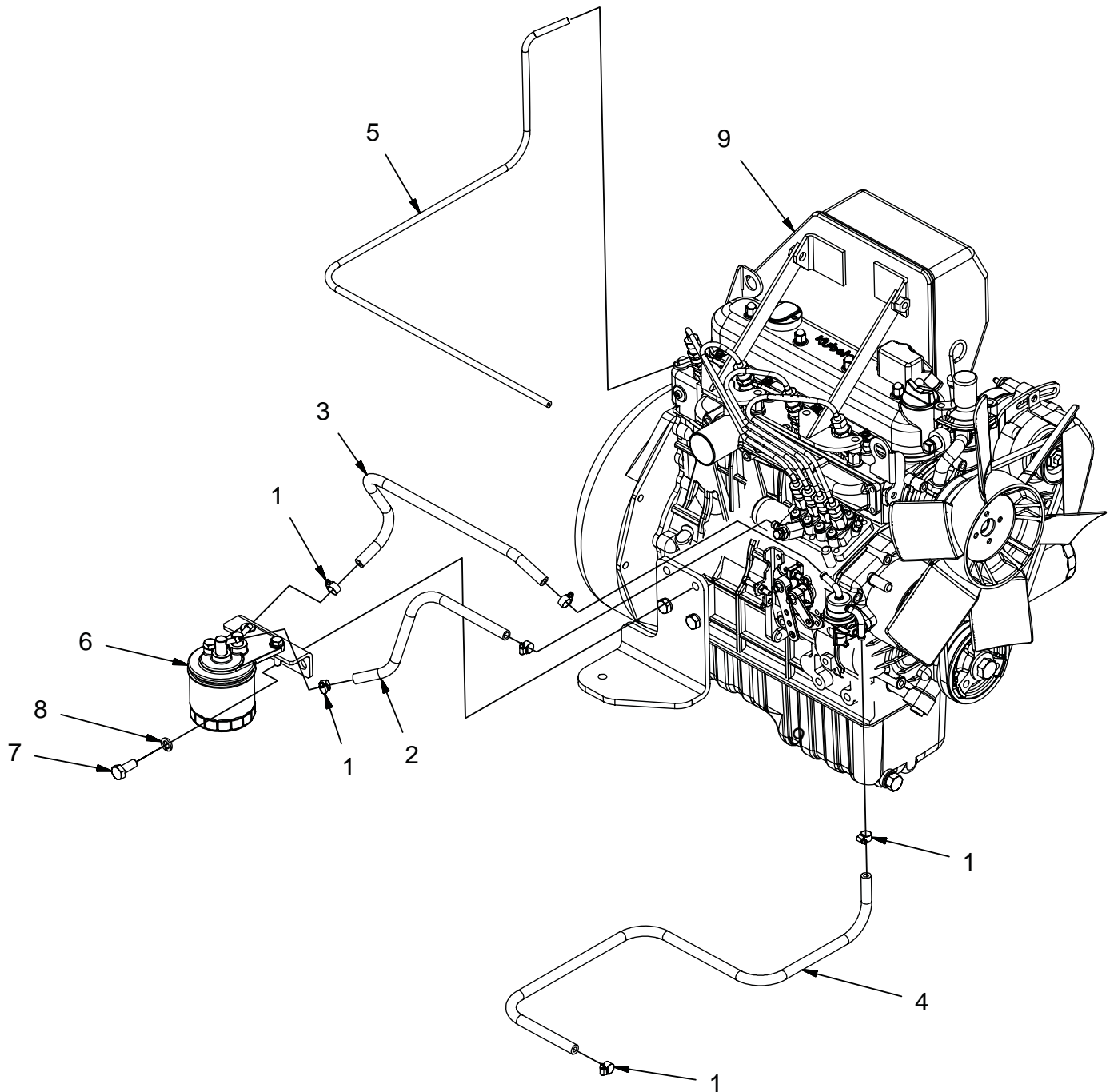
## FUEL TANK - DIESEL





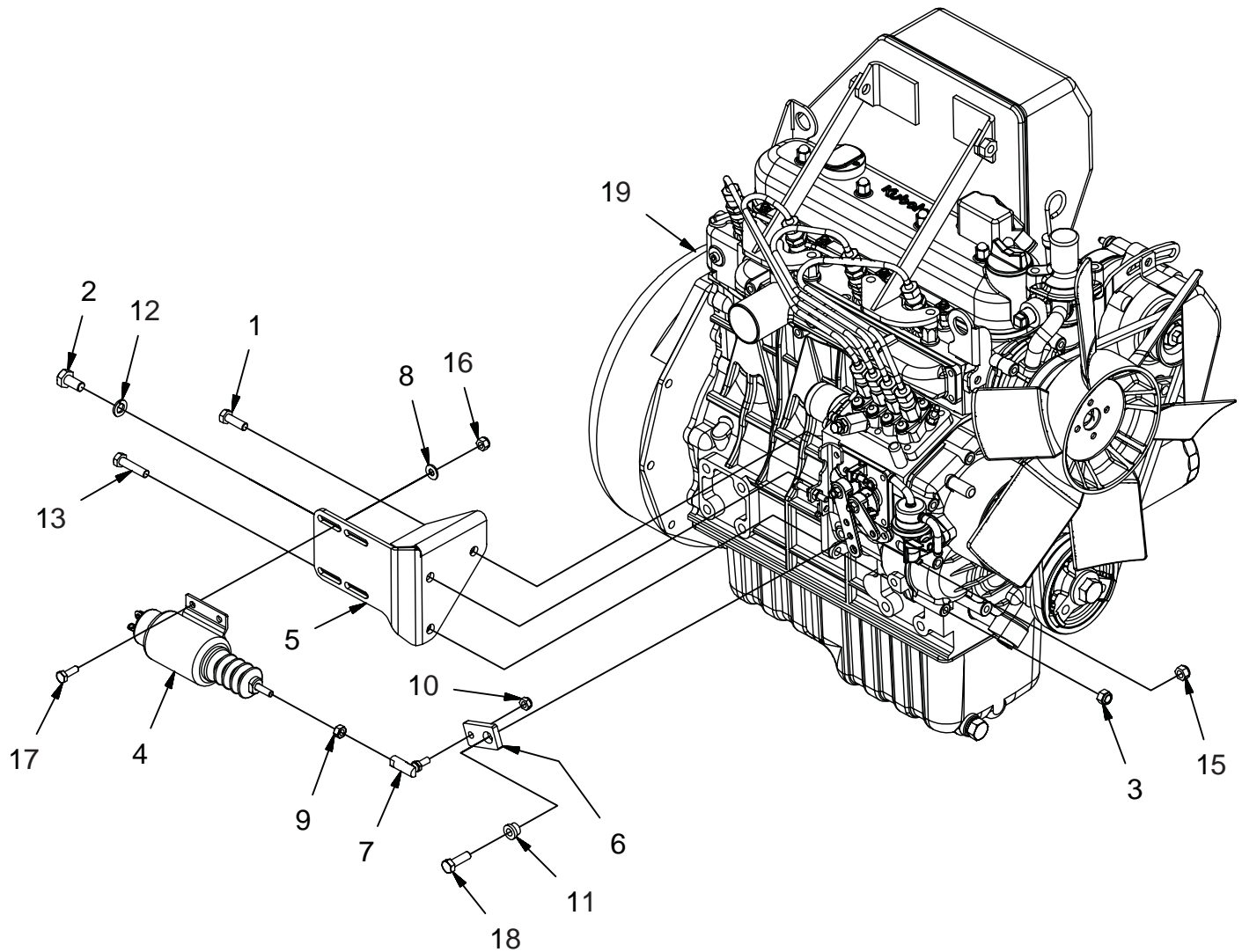
Parts List			
ITEM	PART NUMBER	QTY	DESCRIPTION
1	11038346	4	BOLT, M10-1.50 X 25 HH
2	3337019	1	SEAL, #10
3	3343413	1	CAP, FUEL TANK
4	3400256	1	PLUG, 1/4 NPT
5	3400385	4	WASHER, 3/8. BELLEVILLE
6	3401579	1	SCREW, HEX, STANDOFF, 2X #10-32 X .50
7	3402022	1	FITTING, 90, 1/4 NPT X .184 BARB
8	600179	1	SENDING UNIT, FUEL LEVEL
9	600181	1	FUEL TANK
10	600936	4	NUT, M10-1.50 FLNG
11	600965	1	FASTENER, PRESS-IN
12	620052	1	FITTING, STR, 1/4 NPT - 5/16 BARB
13	PART OF 84-2041	1	GASKET
14	PART OF 84-2041	4	SCREW #10-32 X .50
	748937	1	WIRE ASSY - FUEL SENDING UNIT

ENGINE DIESEL KUBOTA V1505 - FUEL LINES



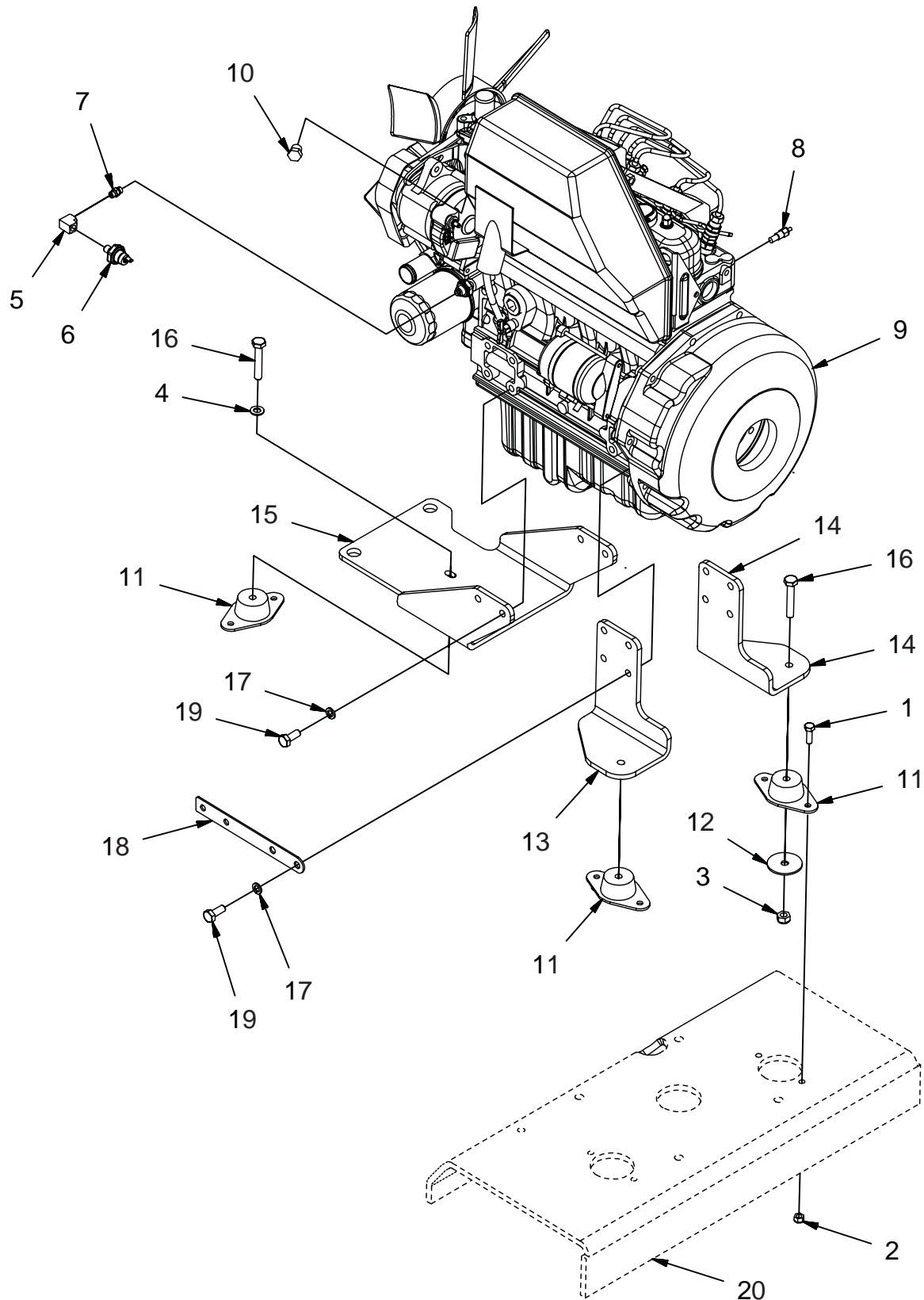
Parts List			
ITEM	PART NUMBER	QTY	DESCRIPTION
1	3302338	6	CLAMP, HOSE, .50
2	620001	1	HOSE, FUEL, 5/16 ID 12.00 LG, SAE30R7
3	620061	1	HOSE, FUEL, 5/16 ID 18.00 LG, SAE30R7
4	620062	1	HOSE, FUEL, 5/16 ID 26.00 LG SAE30R7
5	620063	1	HOSE, FUEL, 1/8 ID 32.00 LG SAE30R7
6	PART OF ENGINE	-	FUEL FILTER ASSEMBLY
7	REF.	-	BOLT, M10-1.50 X 25 HH
8	REF.	-	LOCK WASHER, M10
9	REF.	-	ENGINE, DIESEL

ENGINE DIESEL KUBOTA V1505 - THROTTLE SOLENOID



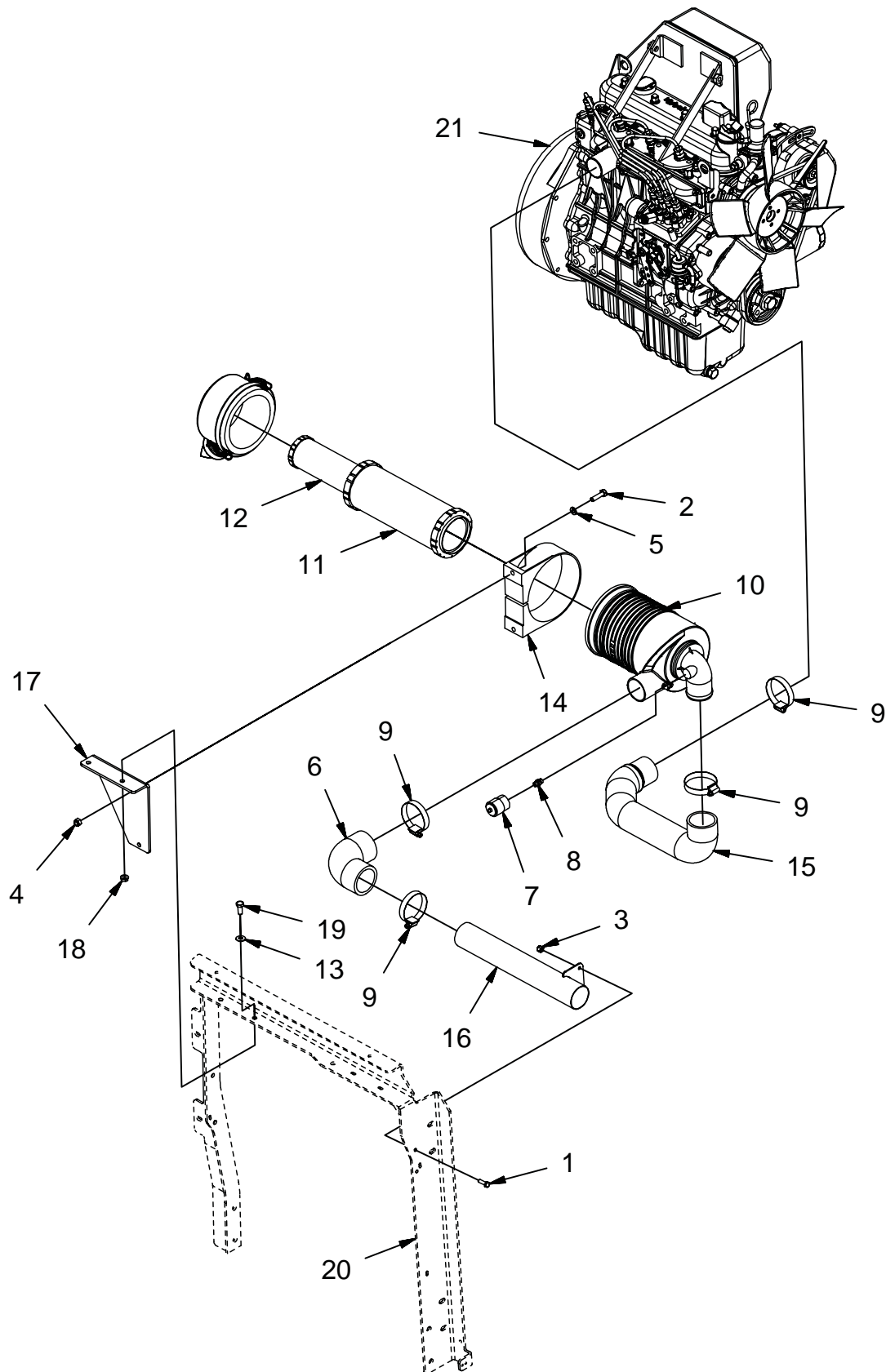
Parts List			
ITEM	PART NUMBER	QTY	DESCRIPTION
1	11038247	1	BLT-HH M8-125 X 25 STL ZINC
2	11038353	1	BOLT, M10-1.50 X 20 HH
3	12040051	1	NUT, M8-1.25 ESN
4	3335303	1	SOLENOID, THROTTLE
5	3335358	1	BRACKET, THROTTLE SOLENOID
6	3335364	1	PLT, KBA V1505 DSL SOLENOID THROTTLE
7	3342225	1	BALL JOINT, 1/4-28 STD LG
8	3400089	4	WASHER, 1/4 .625 X .281 X .063
9	3400180	1	NUT, 1/4-28
10	3400373	1	NUT, LOW HEIGHT 1/4-20 ESN
11	3401071	1	BUSHING, FLNG, .312 ID X .50 OD X .375
12	3401458	1	LOCK WASHER, M10
13	600918	1	BOLT, M8-125 X 35 HH
14	600959	2	LOCK WASHER, M8
15	711374	1	NUT, FIBER INSERT 5/16-18
16	711377	4	NUT, FIBER INSERT 1/4-20
17	713002	4	SCREW, 1/4-20 X .750 HHC
18	713027	1	SCREW, 5/16-18 X 1.000 HHM
19	REF.	-	ENGINE, DIESEL

ENGINE DIESEL KUBOTA V1505 - ENGINE MOUNT



Parts List			
ITEM	PART NUMBER	QTY	DESCRIPTION
1	11038247	6	BLT-HH M8-125 X 25 STL ZINC
2	12040051	6	NUT, M8-1.25 ESN
3	12040069	3	NUT, M10-1.50 ESN
4	12310058	1	WASHER, M10
5	3301720	1	FTG, BRASS ELBOW, 1/8 FEMALE NPT
6	3304040	1	SWITCH, OIL PRESSURE SW 75
7	3305640	1	FITTING, NIPPLE
8	3313288	1	SWITCH, WATER TEMP SHUTDOWN KBA
9	3316969-1	1	ENGINE, DSL, KUBOTA V1505-1AAR8
10	3400194	1	PIPE PLUG, BRASS, 3/8
11	600212	3	ISOLATOR, VIBRATION
12	600333	3	WASHER, SAFETY
13	600881	1	MOUNT, REAR OUTER DIESEL ENG
14	600882	1	MOUNT, REAR INNER DIESEL ENG
15	600899	1	MOUNT, FRONT DIESEL ENG
16	600925	3	BOLT, M10-1.50 X 60 HH
17	600945	12	LOCK WASHER, M10
18	620081	1	MOUNT, HARNESS
19	620082	12	BOLT, M10-1.25 X 25 HH ZP
20	REF.	-	FRAME

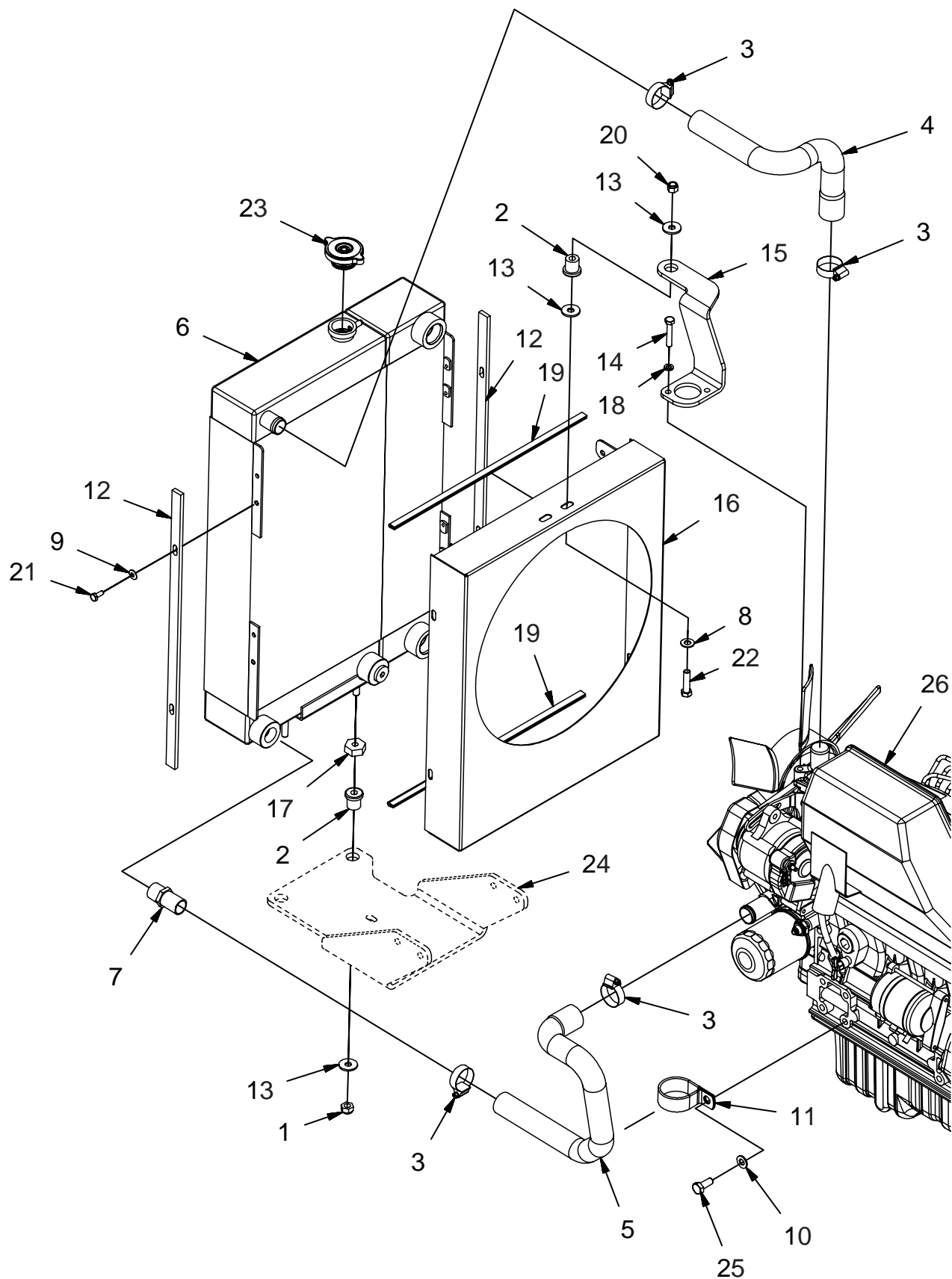
**ENGINE DIESEL KUBOTA V1505 - AIR CLEANER**





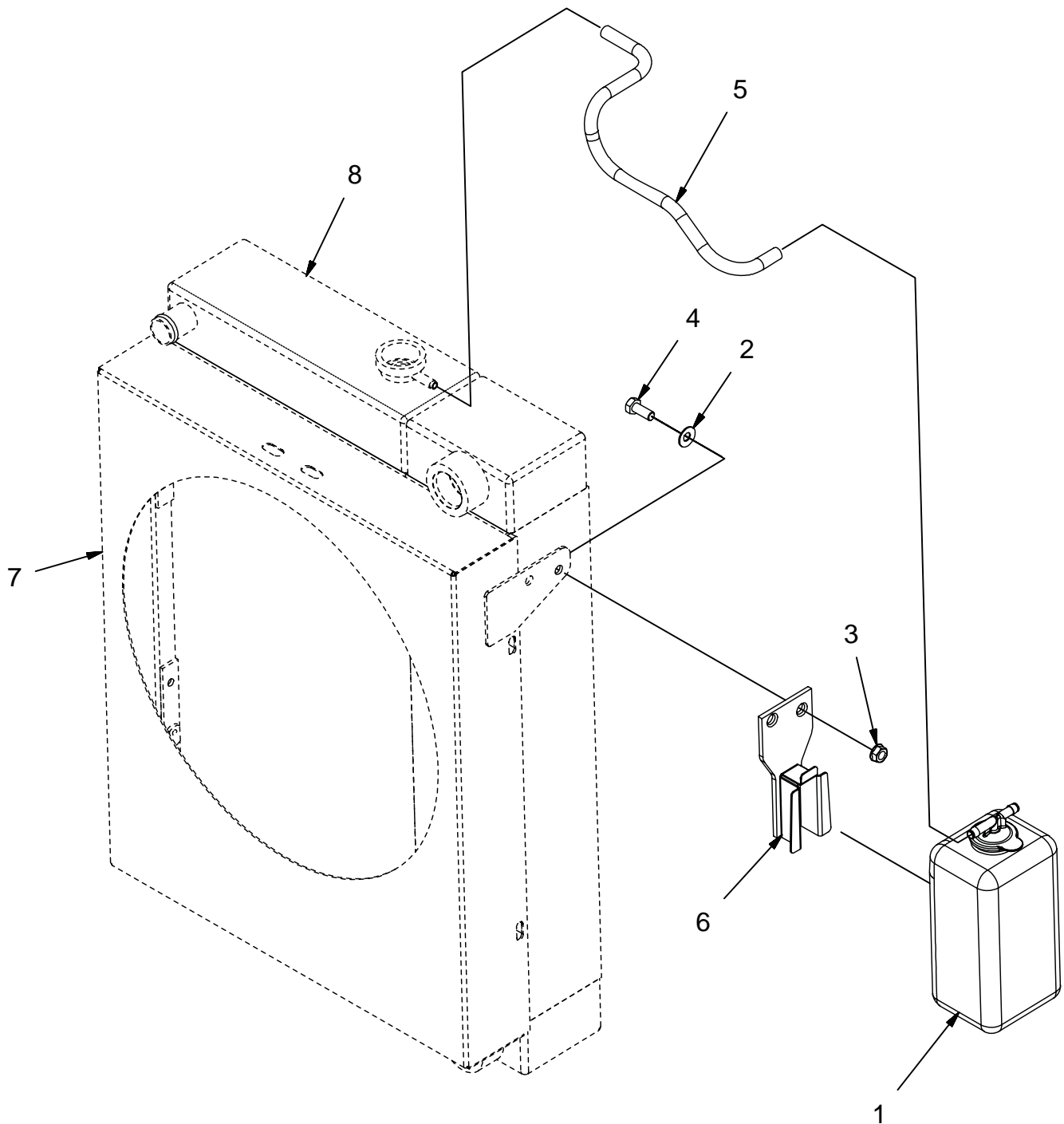
Parts List			
ITEM	PART NUMBER	QTY	DESCRIPTION
1	11038098	2	BOLT, M6-100 X 20 HH
2	11038254	2	BOLT, M8-125 X 30 HH
3	12040044	2	NUT, M6-1.00 ESN
4	12040051	2	NUT, M8-1.25 ESN
5	12310041	2	WASHER, M8
6	3300396	1	ADAPTER, 2" 90
7	3303991	1	INDICATOR, FLTR SERVICE
8	3305640	1	FITTING, NIPPLE
9	3312189	4	CLAMP, HOSE, 2.00
10	3317917	1	HOUSING, AIR FLTR
11	3321143	1	ELEMENT, FLTR, PRIMARY
12	3322572	1	ELEMENT, FLTR, SAFETY
13	3400384	2	WASHER, 5/16 BELLEVILLE
14	600385	1	MOUNTING BAND, AIR CLEANER
15	600866	1	HOSE, DIESEL INTAKE
16	600877	1	WELDMENT, AIR INTAKE, DIESEL
17	600883	1	MOUNT, AIR CLEANER, DIESEL
18	600934	2	NUT, M8-1.25 FLNG
19	717024	2	BOLT, M8-1.25 X 20 HH
20	REF.	-	COVER FRAME
21	REF.	-	DIESEL ENGINE

ENGINE DIESEL KUBOTA V1505 - RADIATOR



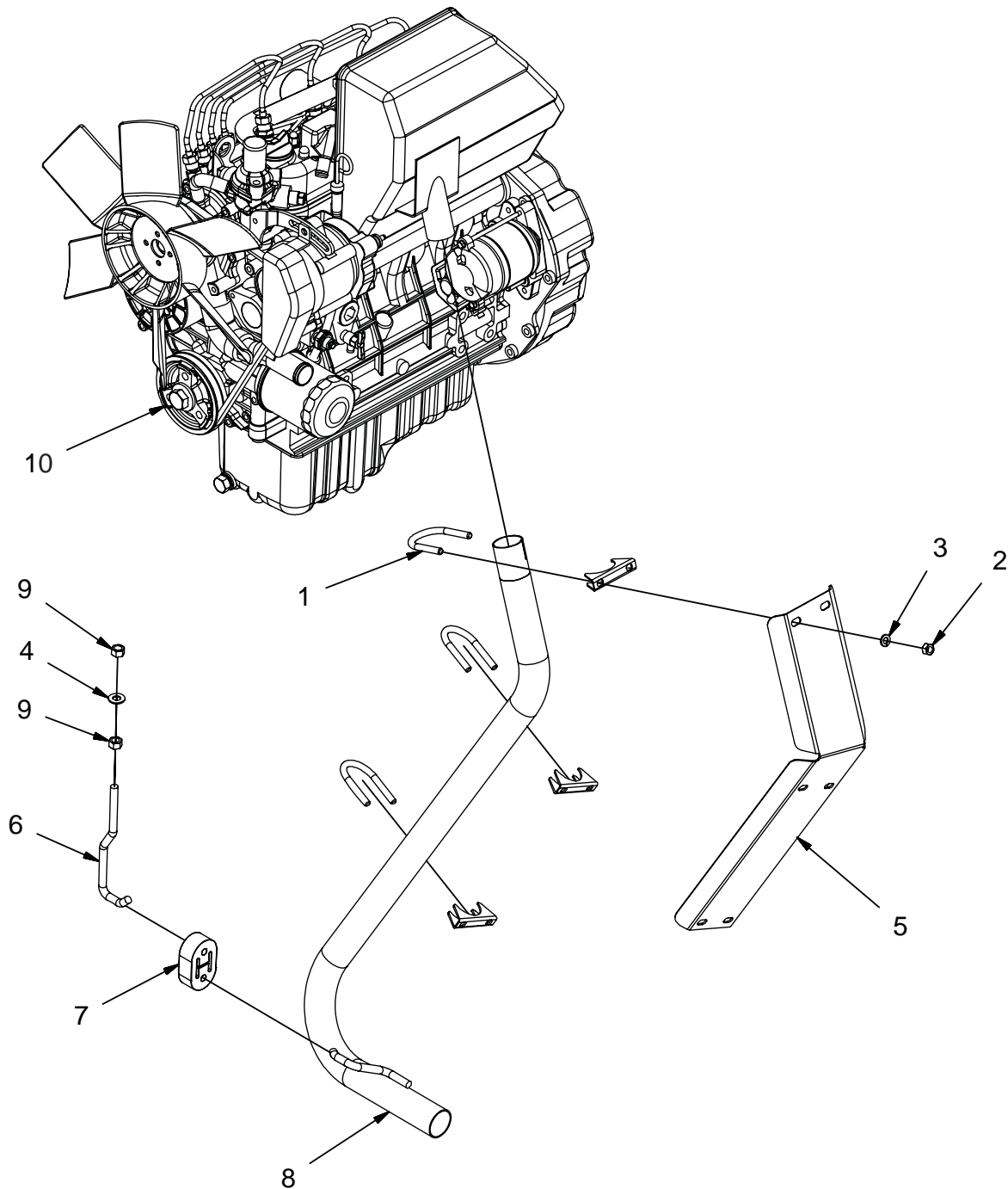
Parts List			
ITEM	PART NUMBER	QTY	DESCRIPTION
1	12040069	2	NUT, M10-1.50 ESN
2	3300465	3	ISOLATOR, VIB
3	3302193	4	CLAMP, HOSE, .75 - 1.25
4	3332643	1	HOSE, UPPER RAD, DIESEL
5	3332644	1	HOSE, LOWER RAD, DIESEL
6	3336679-1	1	RADIATOR - OIL COOLER
7	3344231	1	FITTING, RADIATOR
8	3400087	1	WASHER, 3/8
9	3400383	4	WASHER, 1/4 BELLEVILLE
10	3400385	1	WASHER, 3/8. BELLEVILLE
11	3402005	1	CLAMP, 2"
12	600198	2	SPACER, SHROUD
13	600363	4	WASHER, ISOLATOR
14	600820	2	BOLT, M8-1.25 X 45 HH
15	600867	1	MOUNT, UPPER SHROUD, DIESEL
16	600875	1	WELDMENT, FAN SHROUD, DIESEL
17	600884	2	WASHER, ISOLATOR
18	600959	2	LOCK WASHER, M8
19	620064	2	SEAL, SHROUD
20	711380	1	NUT, FIBER INSERT 3/8-16
21	713001	4	SCREW, 1/4-20 X .625 HHC
22	713044	1	SCREW, 3/8-16 X 1.500 HHC
23	PART OF 3336679	1	RADIATOR CAP
24	REF	-	FRONT ENGINE MOUNT
25	REF.	-	BOLT, ENGINE MOUNT
26	REF.	-	ENGINE, DIESEL

ENGINE DIESEL KUBOTA V1505 - RADIATOR OVERFLOW BOTTLE



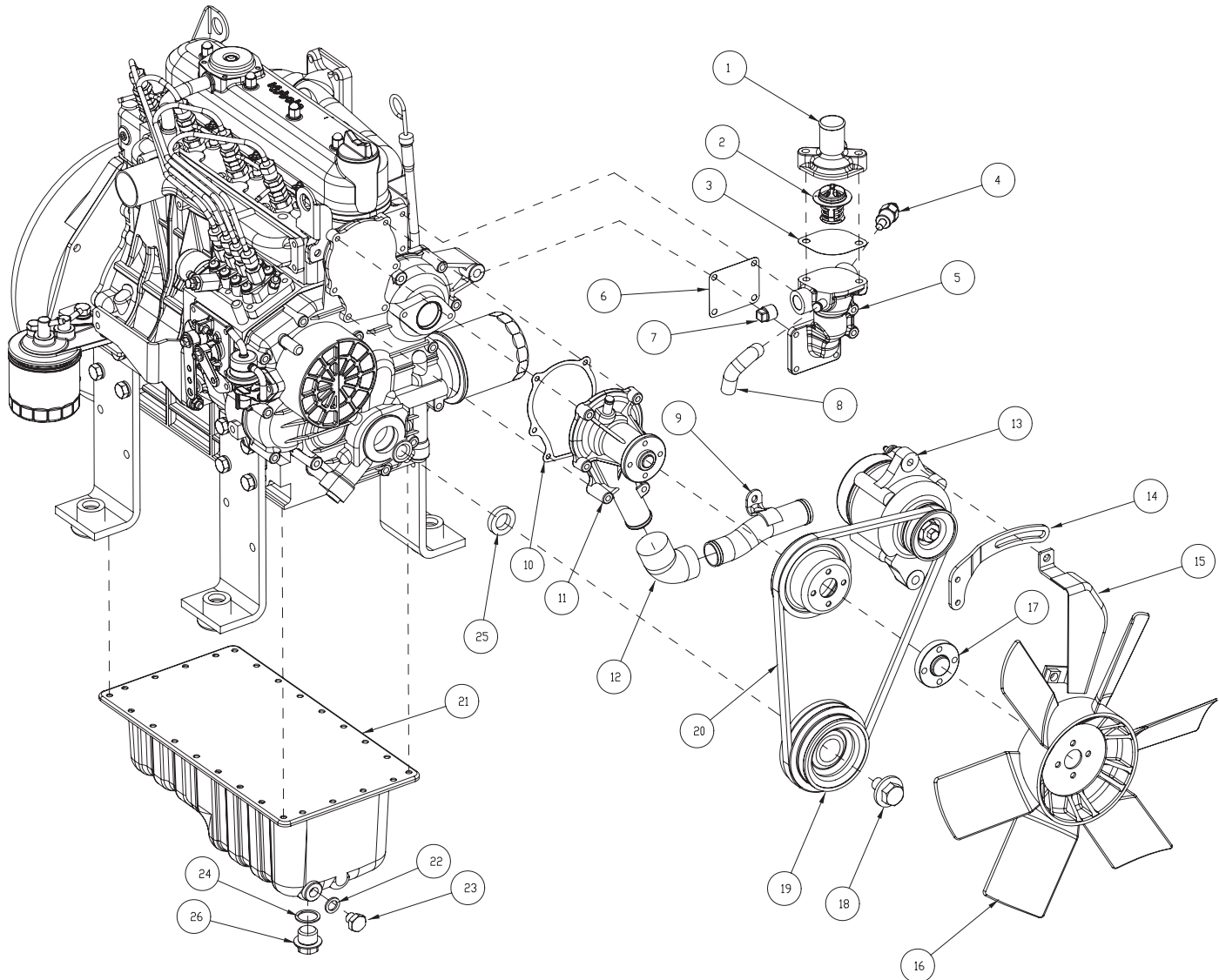
Parts List			
ITEM	PART NUMBER	QTY	DESCRIPTION
1	3318752	1	OVERFLOW BOTTLE
2	3400384	2	WASHER, 5/16 BELLEVILLE
3	600934	2	NUT, M8-1.25 FLNG
4	717024	2	BOLT, M8-1.25 X 20 HH
5	PART OF 3318752	1	HOSE,OVERFLOW
6	PART OF 3318752	1	BRACKET, BOTTLE
7	REF.	-	FAN SHROUD, DIESEL
8	REF.	-	RADIATOR

ENGINE DIESEL KUBOTA V1505 - EXHAUST GROUP



Parts List			
ITEM	PART NUMBER	QTY	DESCRIPTION
1	3301641	3	CLAMP, EXHAUST
2	3400070	6	NUT, 5/16-15 HEX
3	3400102	6	LOCK WASHER, 5/16 HS MED
4	3400385	1	WASHER, 3/8. BELLEVILLE
5	600885	1	HEAT SHIELD, DIESEL
6	620203	1	EXHAUST HANGER, UPPER FRONT
7	620205	1	EXHAUST ISOLATOR
8	620207	1	WELDMENT, EXHAUST PIPE, DIESEL
9	711328	2	NUT, HEX 3/8-16
10	REF.	-	DIESEL ENGINE

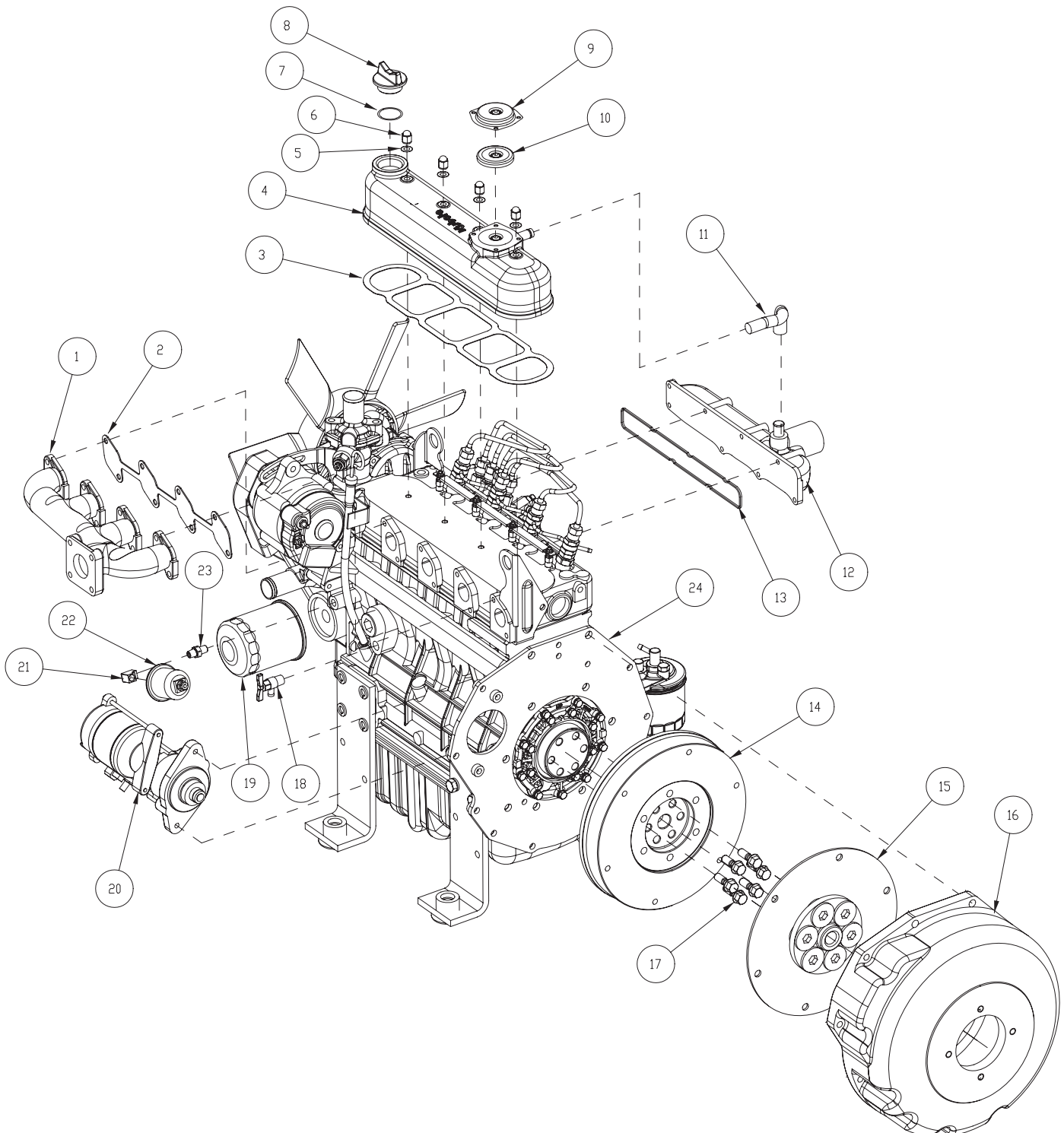
**ENGINE DIESEL KUBOTA V1505 - ALTERNATOR, WATER PUMP, FAN, AND OIL PAN**





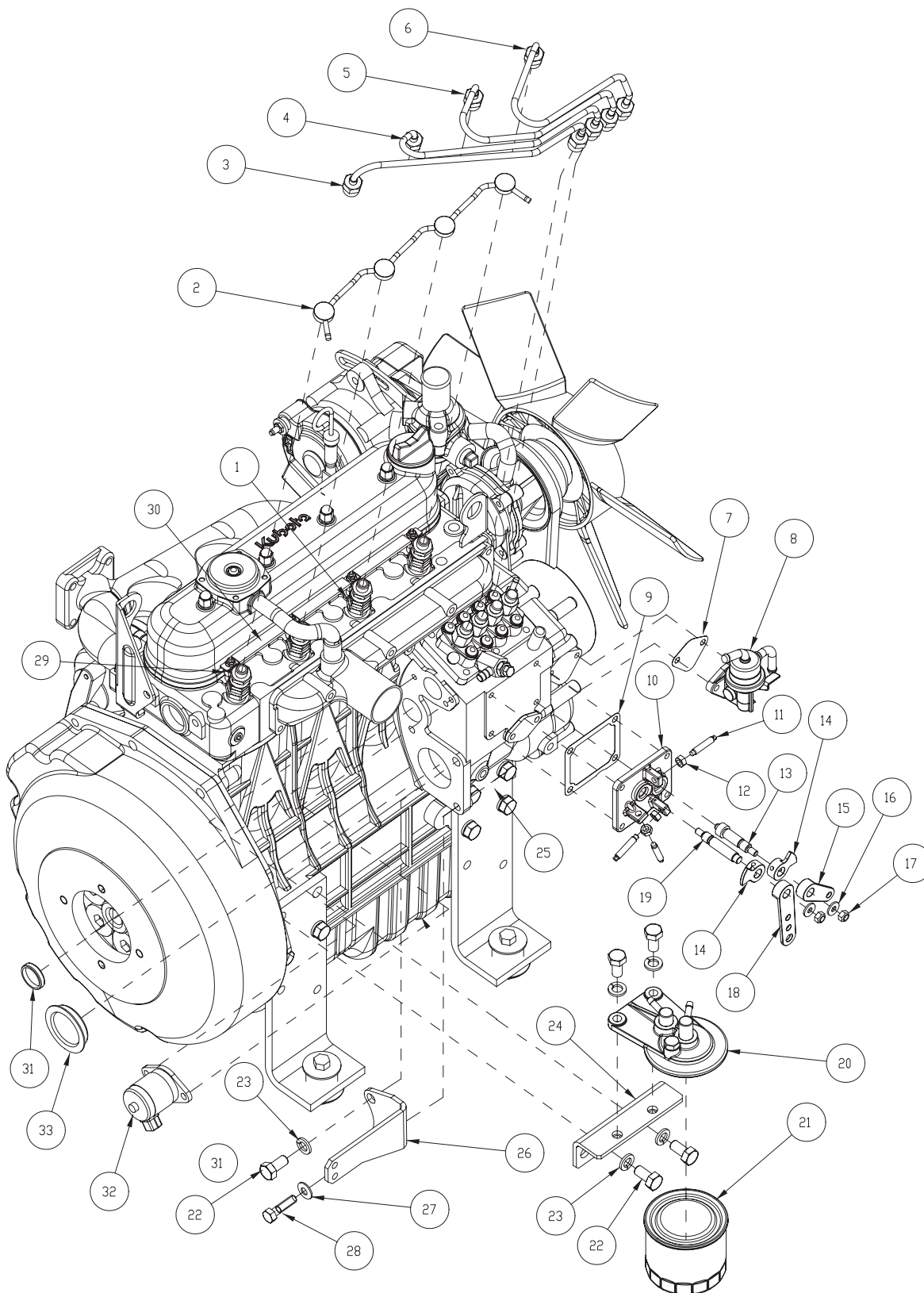
KUBOTA V1505 SUB ASSEMBLY BOM			
ITEM	PART NO.	REQ'D	DESCRIPTION
1	3336919	1	COVER-THERMOSTAT KUBOTA V1505
2	3350446	1	THERMOSTAT-KUBOTA V1505 & V2203
3	3336918	1	GASKET-THERMOSTAT KUBOTA V1505
4	3341070	1	SENDER-TEMPERATURE 12V KUBOTA V1505
5	3336939	1	HOUSING-THERMOSTAT KUBOTA V1505
6	3336915	1	GASKET-WATER FLANGE KUBOTA V1505
7	3336947	1	PLUG-THERMOSTAT HSG KUBOTA V1505
8	3336931	1	PIPE-WATER RETURN THERMOSTAT HSG
9	3336946	1	PIPE-WATER KUBOTA V1505
10	3330793	1	GASKET - KUBOTA V1505 WATER PUMP
11	3330792	1	PUMP - WATER, KUBOTA V1505
12	3336932	1	PIPE-WATER PUMP KUBOTA V1505
13	3329875	1	ALTERNATOR-KUBOTA V1505
14	3336067	1	STAY-DYNAMO
15	3331935	1	COVER-BELT
16	3330210	1	FAN - KUBOTA V1505 ENGINE (SP) 1
17	3336933	1	SPACER-FAN 10MM KUBOTA V1505
18	3336937	1	BOLT-PULLEY KUBOTA V1505
19	3336934	1	PULLEY-ENGINE KUBOTA V1505
20	3329867	1	BELT-KUBOTA V1505V
21	3336920	1	PAN-OIL KUBOTA V1505
22	3336936	1	GASKET-DRAIN PLUG KUBOTA V1505
23	3331586	1	PLUG-DRAIN
24	3333377	1	GASKET-DAIN PLUG
25	3337571	1	SEAL OIL KUBOTA V1505
26	3336921	1	PLUG-OIL PAN KUBOTA V1505

ENGINE DIESEL KUBOTA V1505 - FLYWHEEL, STARTER, HEAD COVER, AND EXHAUST



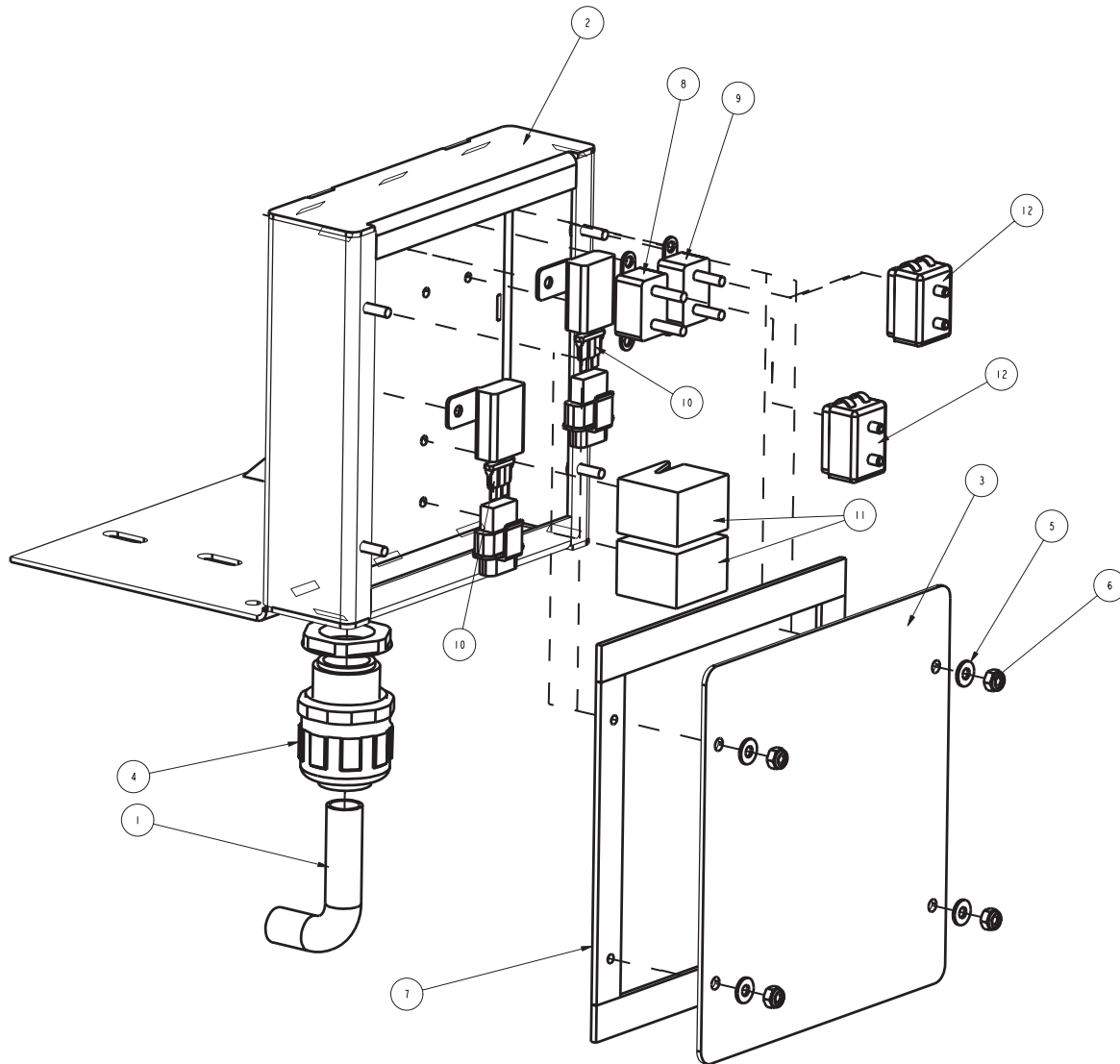
GASKET MOUNT ASSEMBLY			
ITEM	PART NO.	REQ'D	DESCRIPTION
1	3334041	1	MANIFOLD-EXHAUST KUBOTA V1505
2	3333964	1	GASKET-EX-MANIFOLD KUBOTA V1505
3	3334278	1	GASKET - VALVE COVER KUBOTA V1505
4	3336910	1	COVER-CYLHEAD KUBOTA V1505
5	3337572	4	GASKET KUBOTA V1505
6	3336916	4	NUT-CYLHEAD COVER KUBOTA V1505
7	3337573	1	O-RING KUBOTA V1505
8	3336926	1	PLUG-OIL FILLER KUBOTA V1505
9	3337574	1	COVER, BREATHER KUBOTA V1505
10	3337575	1	VALVE BREATHER KUBOTA V1505
11	3337576	1	TUBE BREATHER KUBOTA V1505
12	3336911	1	MANIFOLD-INLET KUBOTA 1505
13	3337577	1	GASKET INTAKE MANIFOLD KUBOTA V1505
14	3336935	1	COMP-FLYWHEEL KUBOTA V1505
15	3329956	1	COUPLING-KUBOTA DIESEL V1505/D905
16	3329957	1	BELL HOUSING KUBOTA V1505 DIESEL
17	3336938	6	BOLT-FLYWHEEL KUBOTA V1505
18	3339628	1	ASSY-COCK DRAIN V1505
19	3324129	1	FILTER - OIL, 1505/905 KUBOTA DIE
20	3330402	1	STARTER - KUBOTA V1505, 12V
21	3301720	1	FTG-90 EL 1/8 FPT
22	3341069	1	SENDER-OIL PRESSURE 12V
23	3305640	1	FTG-NIPPLE 1/8BPT-1/8NPT BRASS
24	3336917	1	PLATE-REAR END V1505

**ENGINE DIESEL KUBOTA V1505 - FUEL SYSTEM AND SPEED CONTROL**



ENGINE PAN, HYDRAULIC HOSE RETAINER & LATCH			
ITEM	PART NO.	REQ'D	DESCRIPTION
1	3330106	4	INJECTOR-KUBOTA V1505 DIESEL
2	3333567	1	FUEL LINE-KBA 1505 LEAK OFF LINE
3	3334998	1	PIPE INJECTION-KUBOTA V1505
4	3334997	1	PIPE INJECTION-KUBOTA V1505
5	3334996	1	PIPE INJECTION-KUBOTA V1505
6	3334995	1	PIPE INJECTION-KUBOTA V1505
7	3330693	1	KUBOTA 1505-FUEL PUMP GASKET
8	3330692	1	PUMP - FUEL, KUBOTA V1505 DIESEL
9	3336924	1	GASKET-CONTROL PLATE KUBOTA V1505
10	3336943	1	PLATE-SPEED CONTROL KUBOTA V1505
11	3336944	3	BOLT-ADJUSTING SPEED CONTROL KUBO
12	3336976	3	HUT-HEX JAM 6MM
13	3336948	1	SHAFT-LEVER STOP SPEED CONTROL KU
14	3336942	2	LEVER-SPEED CONTROL KUBOTA V1505
15	3336945	1	LEVER-ENGINE STOP KUBOTA V1505
16	3336969	2	WASHER-PLAIN 15MM OD X 6MM ID X 1
17	3336970	2	NUT-HEX LOCK 6MM
18	3336941	1	LEVER-SPEED CONTROL KUBOTA V1505
19	3336949	1	LEVER-GOVERNOR KUBOTA V1505
20	3305882	1	MOUNT, FUEL FILTER KUBOTA PNTD
21	3303324	1	FILTER - FUEL KUBOTA DSL (SP)
22	3400293	5	SCR-HEX 10MMX1.25PX20MM ZP
23	3401458	5	WSH-LOCK, 10 MM ZP
24	3336912	1	BRACKET-FUEL FILTER KUBOTA V1505
25	3400390	1	NUT-FLANGE LOCK 5/16-18
26	3350331	1	MOUNT-THROTTLE KBA 1505 DSL
27	3400384	1	WASHER CONICAL SPRING 5/16
28	3400034	1	SCR-HEX,5/16-18X1.25 ZP
29	3330795	4	GLOW PLUG KUBOTA V1505
30	3337578	1	CORD GLOW PLUG KUBOTA V1505
31	3336927	1	PLUG-ENGINE KUBOTA V1505
32	3334549	1	KIT-SOLENOID FUEL SHUT-OFF W/ JUMPER
33	3336925	1	COVER HYDRAULIC PUMP-ENGINE KUBOTA V1505

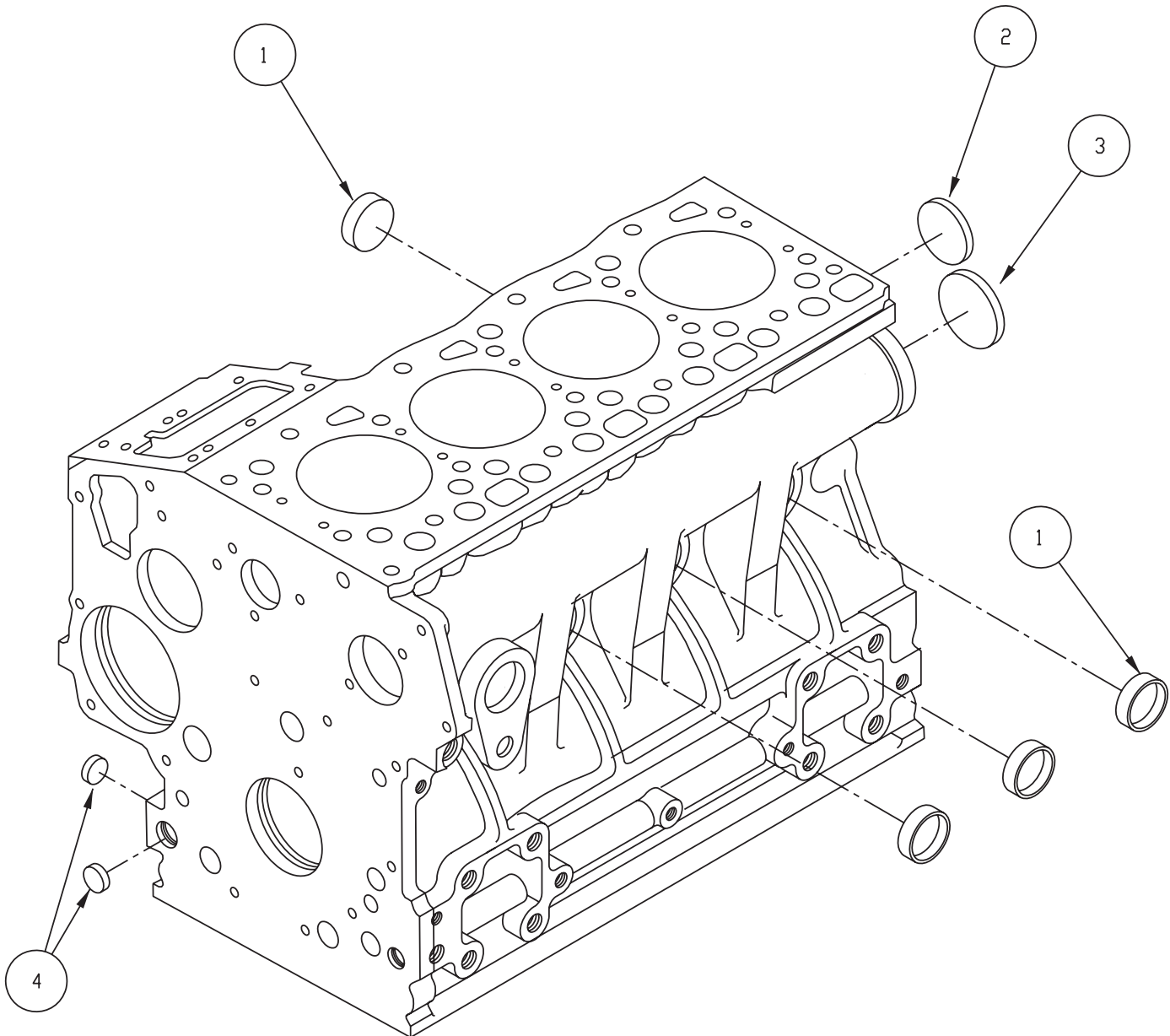
**ENGINE DIESEL KUBOTA V1505 - FUSE BOX DETAILS**



ENGINE KUBOTA V1505 DIESEL - FUSE BOX DETAILS			
ITEM	PART NO.	REQ'D	DESCRIPTION
1	3335664	1	KIT-PANEL EPS3901X-V1505 W/WIRING HARNESS (Includes Items 8-11)
2	3336073	1	WELD- FUSE BOX
3	3336077	1	PLT-COVER FUSE BOX
4	3336079	1	FTG-CONDUIT 1" FLEX CONNECTOR
5	3400095	4	WASHER-FLAT #10
6	3400172	4	NUT-HEX JAM #10-32 ES
7	3500246	2.375'	GASKET-OPEN CELL, 1/8x3/4
8	3334051	1	BREAKER-40 AMP V1505 DIESEL
9	3334052	1	BREAKER-30 AMP V1505 DIESEL
10	3335329	2	FUSE - 10 AMP V1505
11	3344053	2	RELAY-SPDT V1505 DIESEL
12	3342910	2	BOOT-INSULATOR-RED FOR CIRCUIT BREAKER



ENGINE DIESEL KUBOTA V1505 - BLOCK AND FREEZE PLUGS

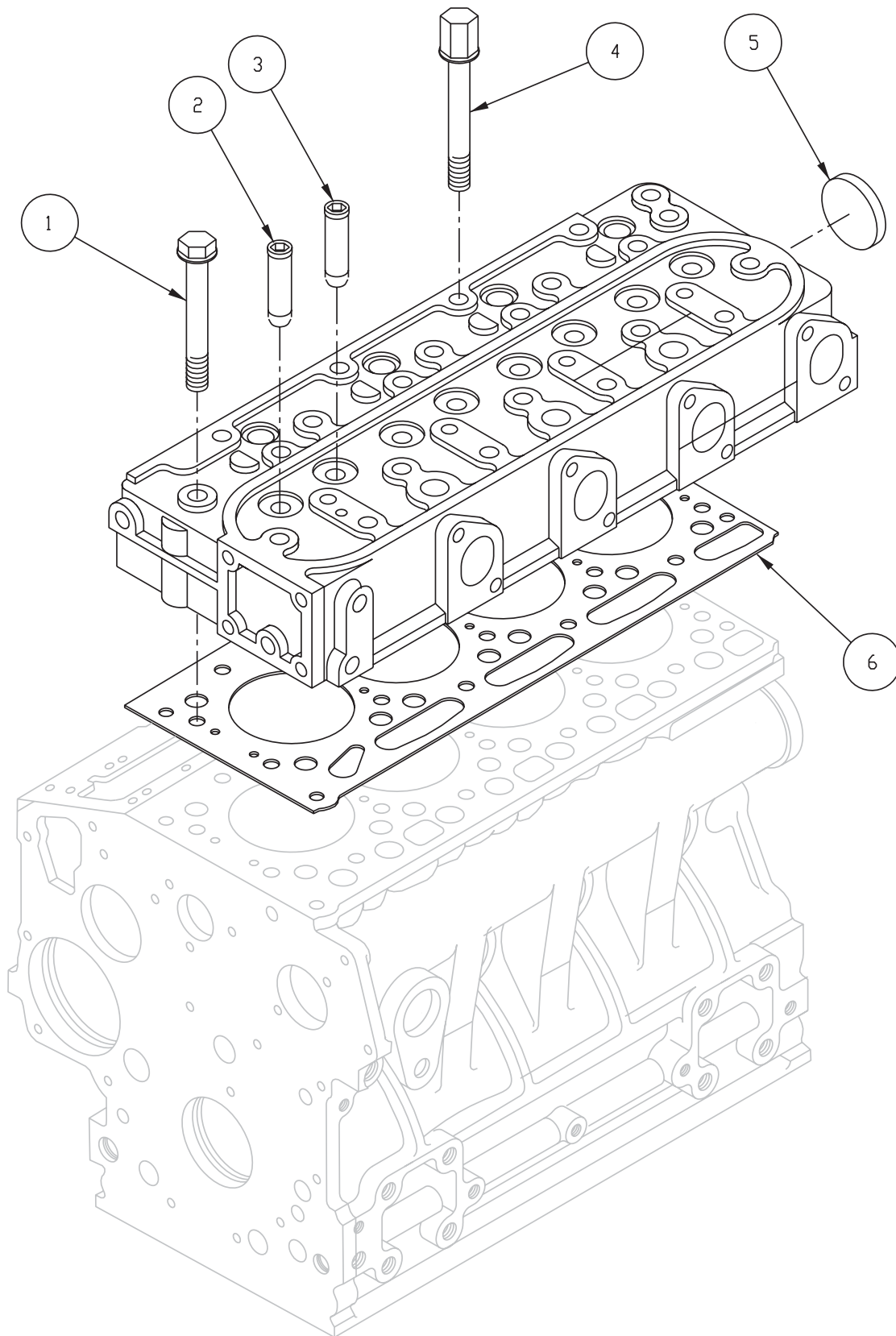




**ENGINE GM 1.6L - ENGINE COMPONENT BREAKDOWN ILLUSTRATION 1 (CONTINUED)**

ITEM	PART NO.	REQ'D	DESCRIPTION
1	3337579	5	CAP SEALING KUBOTA V1505
2	3337580	1	CAP SEALING KUBOTA V1505
3	3337581	1	PLUG EXPANSION KUBOTA V1505
4	3337582	2	PLUG EXPANSION KUBOTA V1505

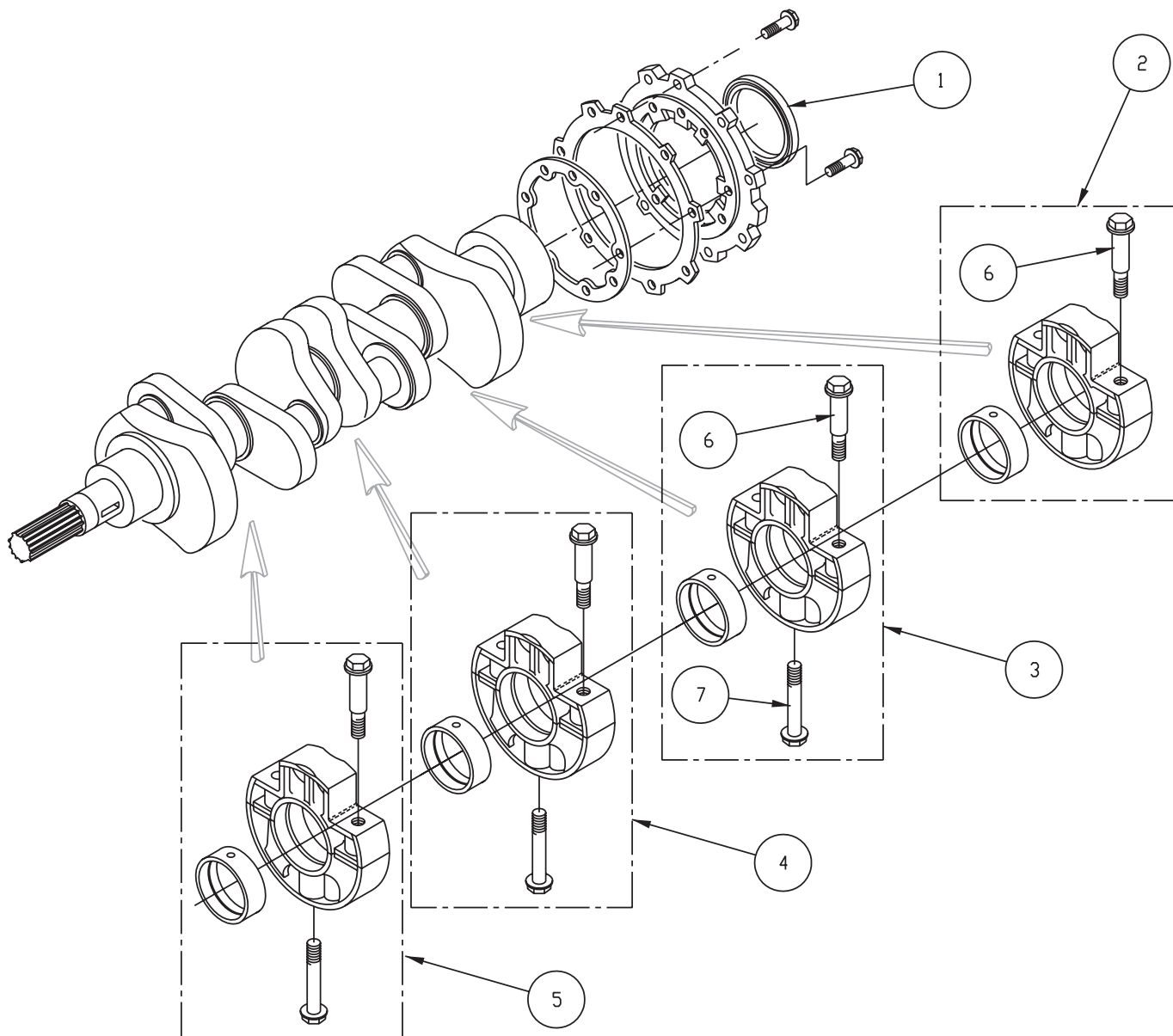
ENGINE DIESEL KUBOTA V1505 - HEAD



**ENGINE GM 1.6L - ENGINE COMPONENT BREAKDOWN ILLUSTRATION 2 (CONTINUED)**

ITEM	PART NO.	REQ'D	DESCRIPTION
1	3337583	14	BOLT CYCLINDER HEAD KUBOTA V1505
2	3337584	4	GUIDE INLET VALVE KUBOTA V1505
3	3337585	4	GUIDE EXHAUST VALVE KUBOTA V1505
4	3337586	4	BOLT CYCLINDER HEAD KUBOTA V1505
5	3337587	1	CAP SEALING KUBOTA V1505
6	3337588	1	GASKET CYCLINDER HEAD KUBOTA V1505

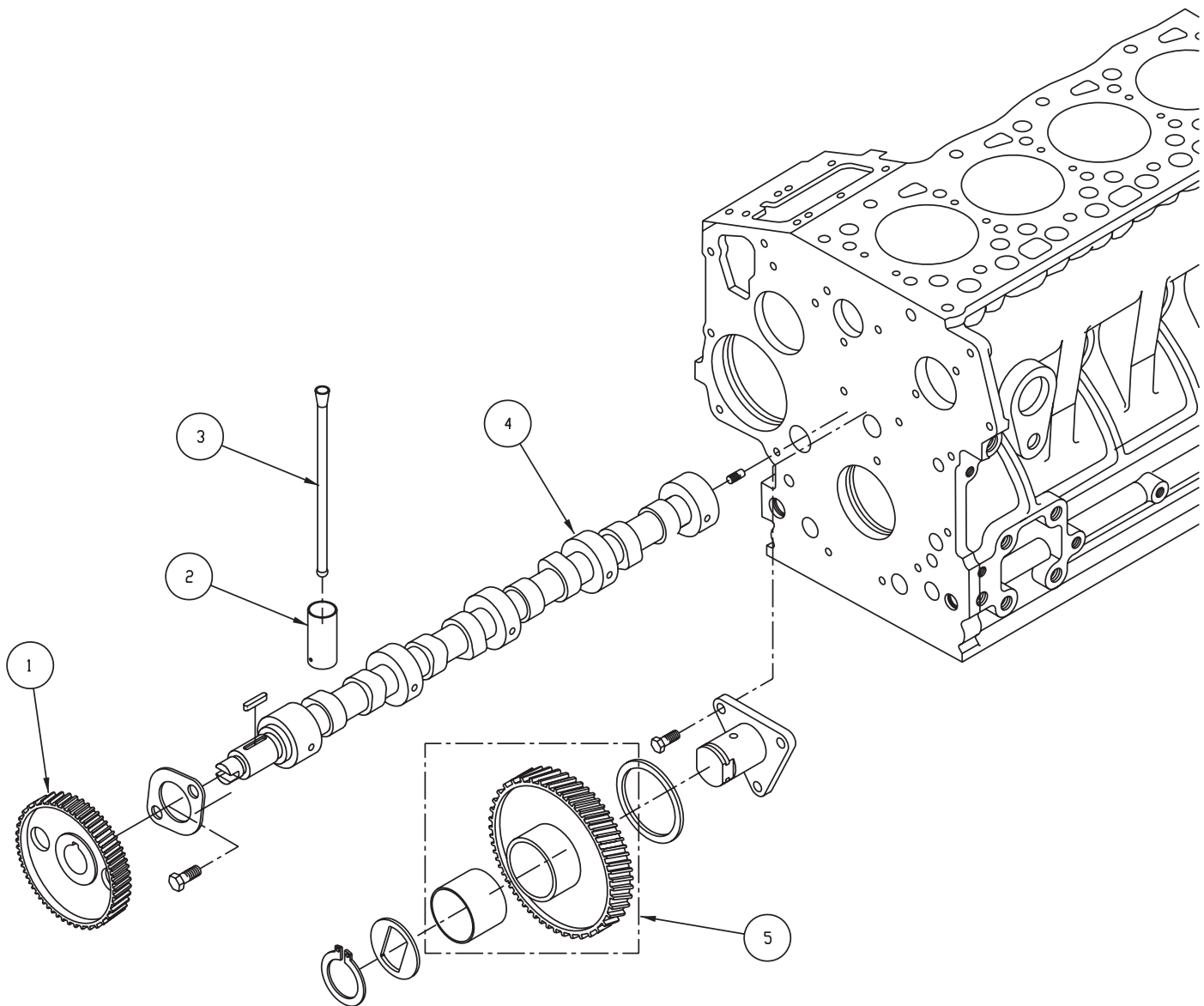
ENGINE DIESEL KUBOTA V1505 - MAIN BEARING CASE



**ENGINE GM 1.6L - ENGINE COMPONENT BREAKDOWN ILLUSTRATION 2 (CONTINUED)**

ITEM	PART NO.	REQ'D	DESCRIPTION
1	3337589	1	SEAL OIL KUBOTA V1505
2	3337590	1	ASSY BEARING CASE WHEEL KUBOTA V1505
3	3337591	1	ASSY BEARING CASE MAIN KUBOTA V1505
4	3337592	1	ASSY BEARING CASE MAIN KUBOTA V1505
5	3337593	1	ASSY BEARING CASE MAIN KUBOTA V1505
6	3337594	4	BOLT BEARING CASE KUBOTA V1505
7	3337595	3	BOLT BEARING CASE KUBOTA V1505

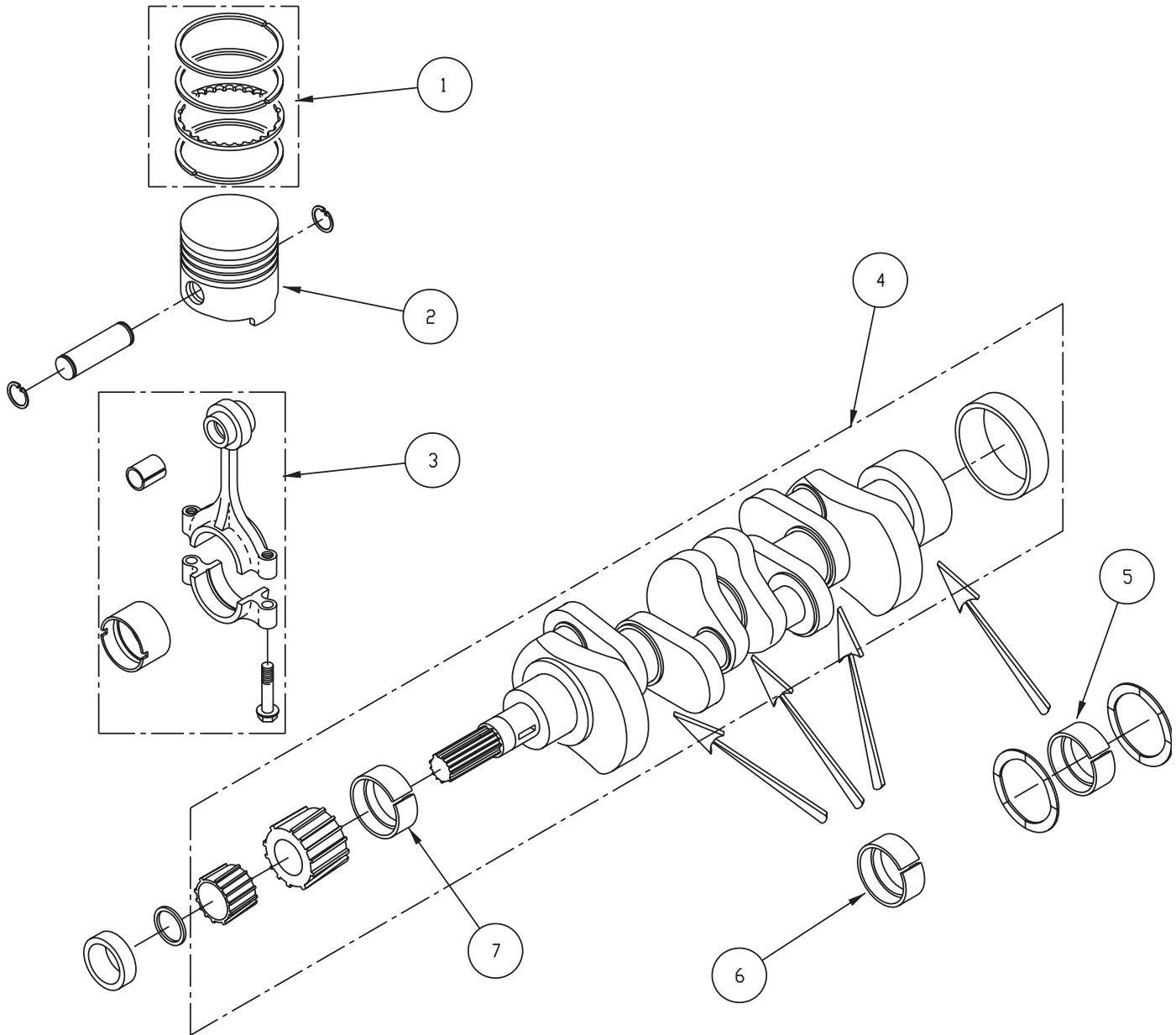
ENGINE DIESEL KUBOTA V1505 - CAMSHAFT AND IDLE GEAR SHAFT



**ENGINE GM 1.6L - ENGINE COMPONENT BREAKDOWN ILLUSTRATION 2 (CONTINUED)**

ITEM	PART NO.	REQ'D	DESCRIPTION
1	3337596	1	GEAR CAM KUBOTA V1505
2	3337597	8	TAPPET KUBOTA V1505
3	3337598	8	PUSH ROD KUBOTA V1505
4	3337599	1	ASSY CAM SHAFT KUBOTA V1505
5	3337600	1	COMP GEAR IDLER KUBOTA V1505

ENGINE DIESEL KUBOTA V1505 - PISTON AND CRANKSHAFT

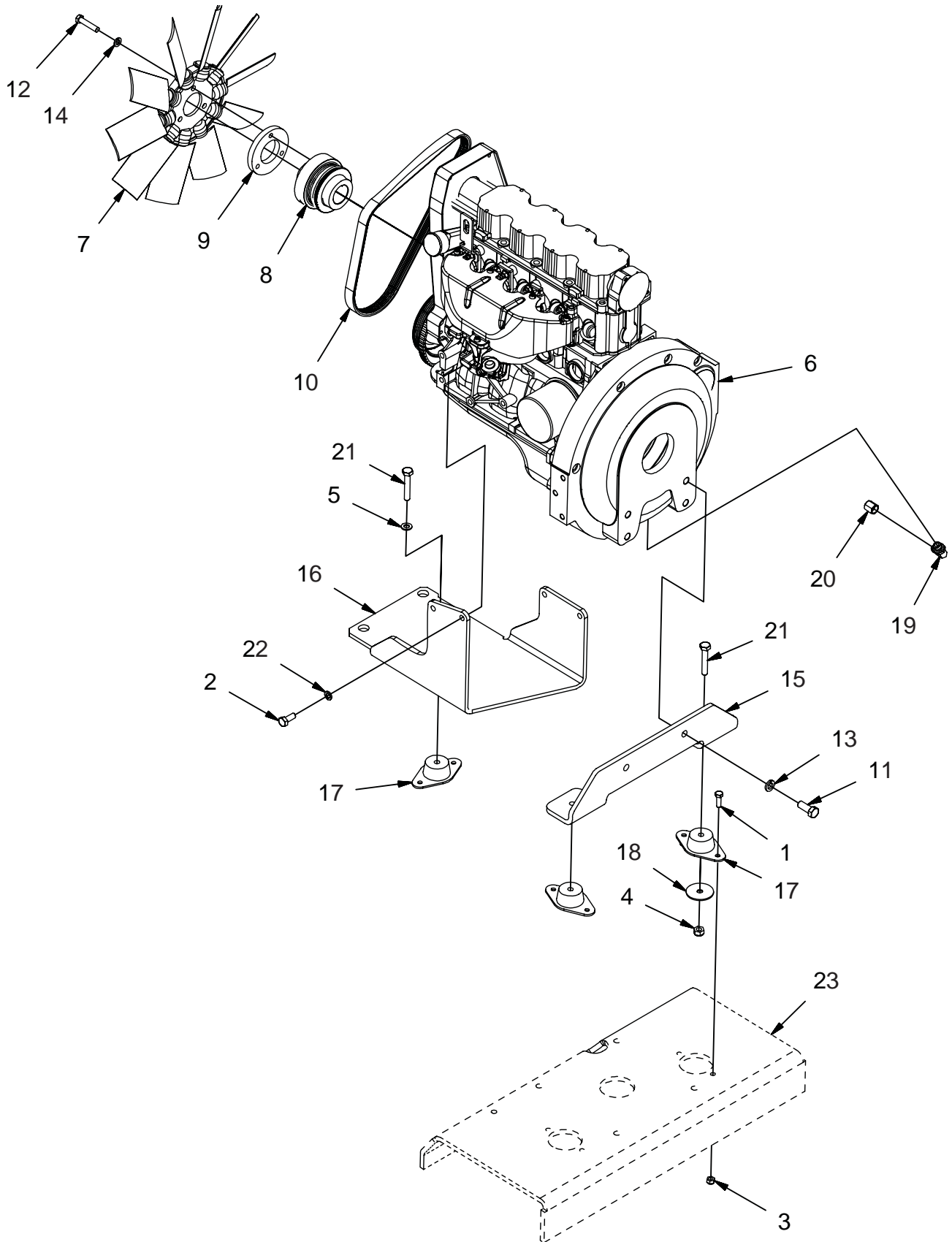




**ENGINE GM 1.6L - ENGINE COMPONENT BREAKDOWN ILLUSTRATION 2 (CONTINUED)**

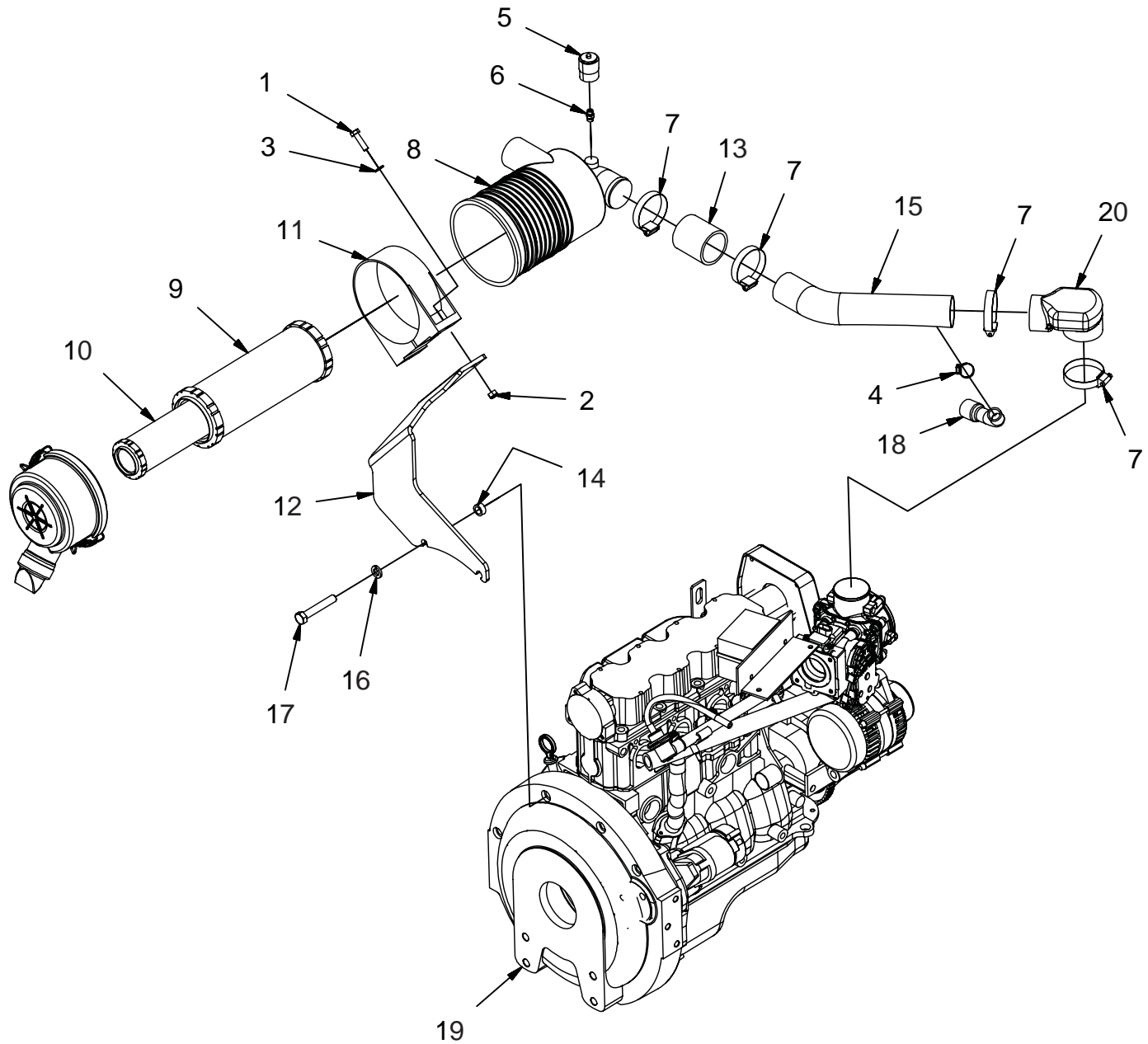
ITEM	PART NO.	REQ'D	DESCRIPTION
1	3337601	4	ASSY PISTON RING STD KUBOTA V1505
	3337602	4	ASSY PISTON RING +0.50MM KUBOTA V1505
2	3337603	4	PISTON STD KUBOTA V1505
	3337604	4	PISTON +0.50MM KUBOTA V1505
3	3337605	4	ASSY ROD CONNECTING KUBOTA V1505
4	3337606	1	COMP CRANKSHAFT KUBOTA V1505
5	3337607	1	METAL CRANKSHAFT STD KUBOTA V1505
	3337608	1	METAL CRANKSHAFT +0.20MM KUBOTA V1505
	3337609	1	METAL CRANKSHAFT +0.40MM KUBOTA V1505
6	3337610	3	METAL CRANKSHAFT STD KUBOTA V1505
	3337611	3	METAL CRANKSHAFT +0.20MM KUBOTA V1505
	3337612	3	METAL CRANKSHAFT +0.40MM KUBOTA V1505
7	3337613	1	METAL CRANKSHAFT STD KUBOTA V1505
	3337614	1	METAL CRANKSHAFT +0.20MM KUBOTA V1505
	3337615	1	METAL CRANKSHAFT +0.40MM KUBOTA V1505

ENGINE GM 1.6L LPG - ENGINE MOUNT



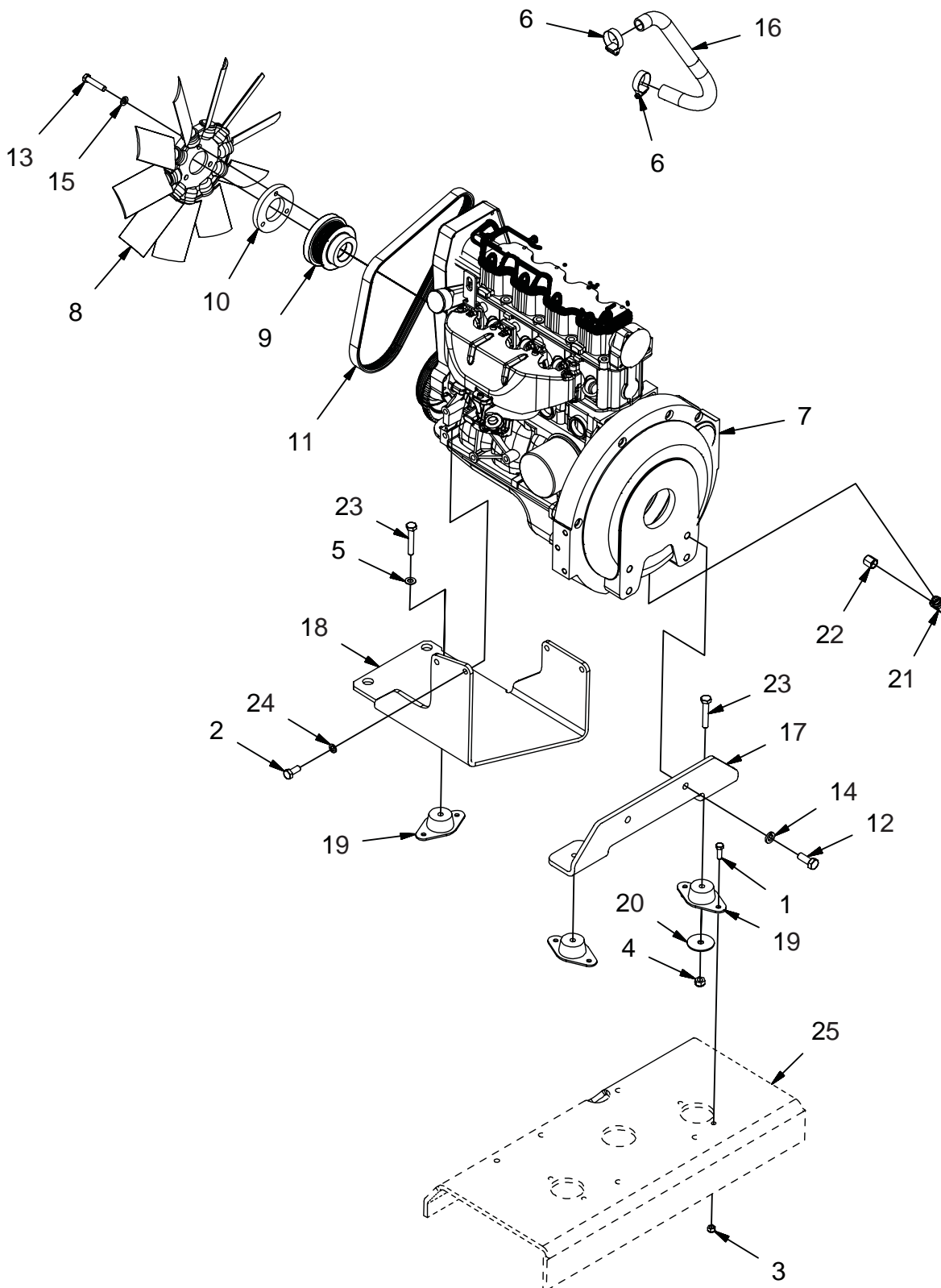
Parts List			
ITEM	PART NUMBER	QTY	DESCRIPTION
1	11038247	6	BLT-HH M8-125 X 25 STL ZINC
2	11038346	4	BOLT, M10-1.50 X 25 HH
3	12040051	6	NUT, M8-1.25 ESN
4	12040069	3	NUT, M10-1.50 ESN
5	12310058	1	WASHER, M10
6	3332826	1	ENGINE, GM 1.6
7	3342304_35_degree	1	FAN, GM_1.6L , PUSHER, 35-DEGREE
8	3343611	1	FAN-1.6 GM PULLEY (SP)
9	3343623	1	SPACER, GM_1.6L FAN, PUSHER
10	3343634	1	BELT-1.6 GM FANPOLY 6-V 39"
11	3400021	2	SCREW, 1/2-13 X 1.25 HH
12	3400027	3	SCREW, 3/8-16 X 1.75 GRD5
13	3400098	2	LOCK WASHER, 1/2 HS MED
14	3400101	3	LOCK WASHER, 3/8 HS MED
15	600210	1	MOUNT, REAR ENGINE
16	600211	1	MOUNT, FRONT ENGINE
17	600212	3	ISOLATOR, VIBRATION
18	600333	3	WASHER, SAFETY
19	600832	1	FITTING, 90, ENGINE OIL DRAIN
20	600833	1	FITTING, CAP
21	600925	3	BOLT, M10-1.50 X 60 HH
22	600945	4	LOCK WASHER, M10
23	REF.	-	FRAME

ENGINE GM 1.6L LPG - AIR CLEANER



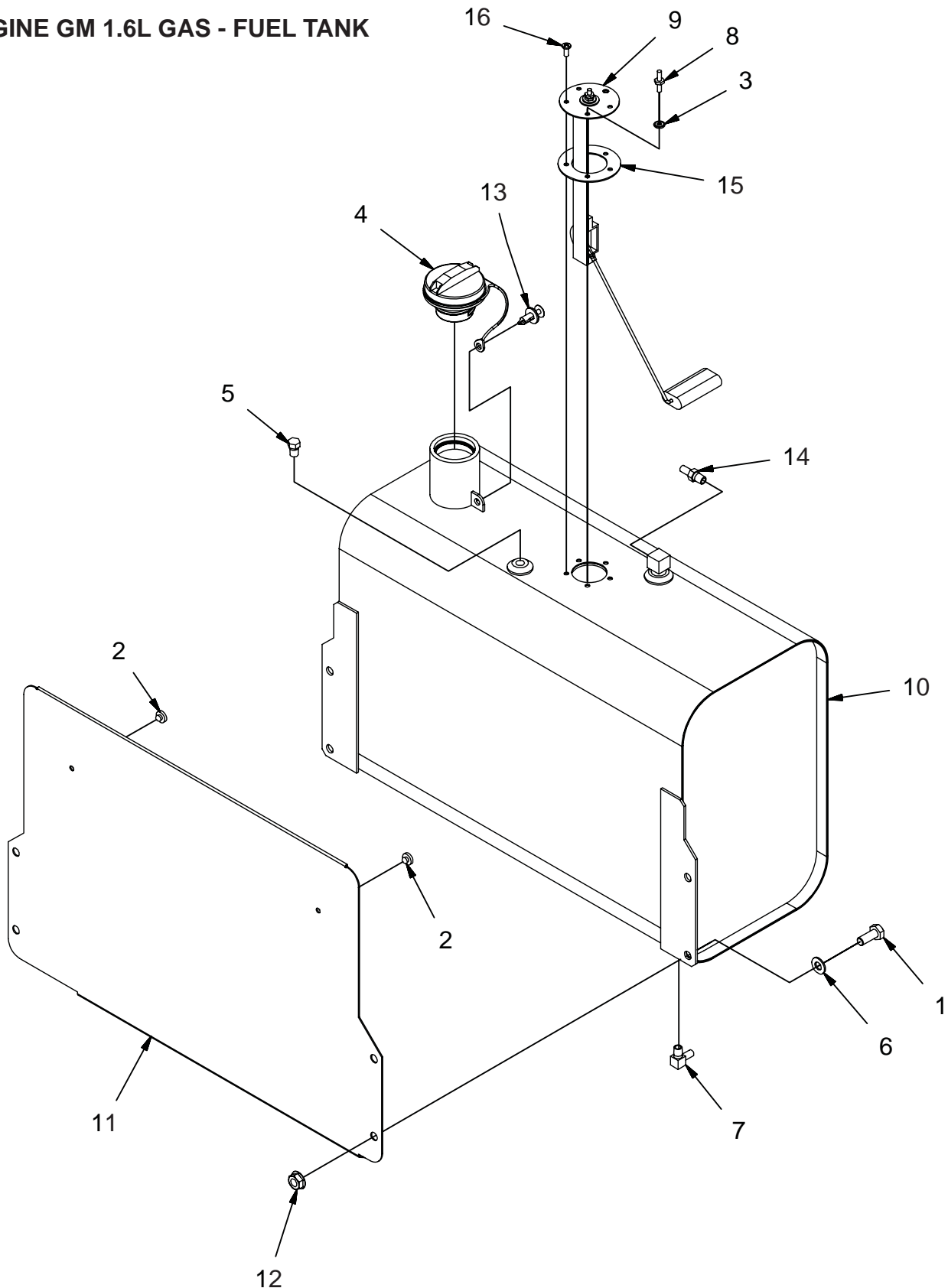
Parts List			
ITEM	PART NUMBER	QTY	DESCRIPTION
1	11038254	2	BOLT, M8-125 X 30 HH
2	12040051	2	NUT, M8-1.25 ESN
3	12310041	2	WASHER, M8
4	3300535	1	CLAMP, HOSE, .50
5	3303991	1	INDICATOR, FLTR SERVICE
6	3305640	1	FITTING, NIPPLE
7	3312189	4	CLAMP, HOSE, 2.00
8	3317917	1	HOUSING, AIR FLTR
9	3321143	1	ELEMENT, FLTR, PRIMARY
10	3322572	1	ELEMENT, FLTR, SAFETY
11	600385	1	MOUNTING BAND, AIR CLEANER
12	600463	1	MOUNT, AIR FLTR
13	600580	1	HOSE, 2.00 X 2.50
14	600811	2	SPACER, .50 B .75 OD .33 T
15	600873	1	WELDMENT, INTAKE TUBE, LPG
16	600961	2	LOCK WASHER, M12
17	620032	2	BOLT, M12-1.75 X 70 HH
18	PART OF ENGINE	1	HOSE, PCV
19	REF.	-	ENGINE
20	REF.	1	COBRA AIR INTAKE

ENGINE GM 1.6L GAS - ENGINE MOUNT



Parts List			
ITEM	PART NUMBER	QTY	DESCRIPTION
1	11038247	6	BLT-HH M8-125 X 25 STL ZINC
2	11038346	4	BOLT, M10-1.50 X 25 HH
3	12040051	6	NUT, M8-1.25 ESN
4	12040069	3	NUT, M10-1.50 ESN
5	12310058	1	WASHER, M10
6	3302193	2	CLAMP, HOSE, .75 - 1.25
7	3343324	1	ENGINE, GM 1.6
8	3342304_35_degree	1	FAN, GM_1.6L , PUSHER, 35-DEGREE
9	3343611	1	FAN-1.6 GM PULLEY (SP)
10	3343623	1	SPACER, GM_1.6L FAN, PUSHER
11	3343634	1	BELT-1.6 GM FANPOLY 6-V 39"
12	3400021	2	SCREW, 1/2-13 X 1.25 HH
13	3400027	3	SCREW, 3/8-16 X 1.75 GRD5
14	3400098	2	LOCK WASHER, 1/2 HS MED
15	3400101	3	LOCK WASHER, 3/8 HS MED
16	3500656	1	HOSE, WATER, .75 ID
17	600210	1	MOUNT, REAR ENGINE
18	600211	1	MOUNT, FRONT ENGINE
19	600212	3	ISOLATOR, VIBRATION
20	600333	3	WASHER, SAFETY
21	600832	1	FITTING, 90, ENGINE OIL DRAIN
22	600833	1	FITTING, CAP
23	600925	3	BOLT, M10-1.50 X 60 HH
24	600945	4	LOCK WASHER, M10
25	REF.	-	FRAME

**ENGINE GM 1.6L GAS - FUEL TANK**





Parts List			
ITEM	PART NUMBER	QTY	DESCRIPTION
1	11038346	4	BOLT, M10-1.50 X 25 HH
2	3300526	2	BUMPER, .25 ID .125 T
3	3337019	1	SEAL, #10
4	3343413	1	CAP, FUEL TANK
5	3400256	1	PLUG, 1/4 NPT
6	3400385	4	WASHER, 3/8. BELLEVILLE
7	3401445	1	FITTING, 90, 1/4 NPT X 5/16 BARB
8	3401579	1	SCREW, HEX, STANDOFF, 2X #10-32 X .50
9	600179	1	SENDING UNIT, FUEL LEVEL
10	600181	1	FUEL TANK
11	600505	1	OVERFLOW PLT
12	600936	4	NUT, M10-1.50 FLNG
13	600965	1	FASTENER, PRESS-IN
14	620052	1	FITTING, STR, 1/4 NPT - 5/16 BARB
15	PART OF 84-2041	1	GASKET
16	PART OF 84-2041	4	SCREW #10-32 X .50
	748937	1	WIRE ASSY - FUEL SENDING UNIT

This diagram illustrates the assembly of a hydraulic system, showing various components and their interconnections. The components are numbered as follows:

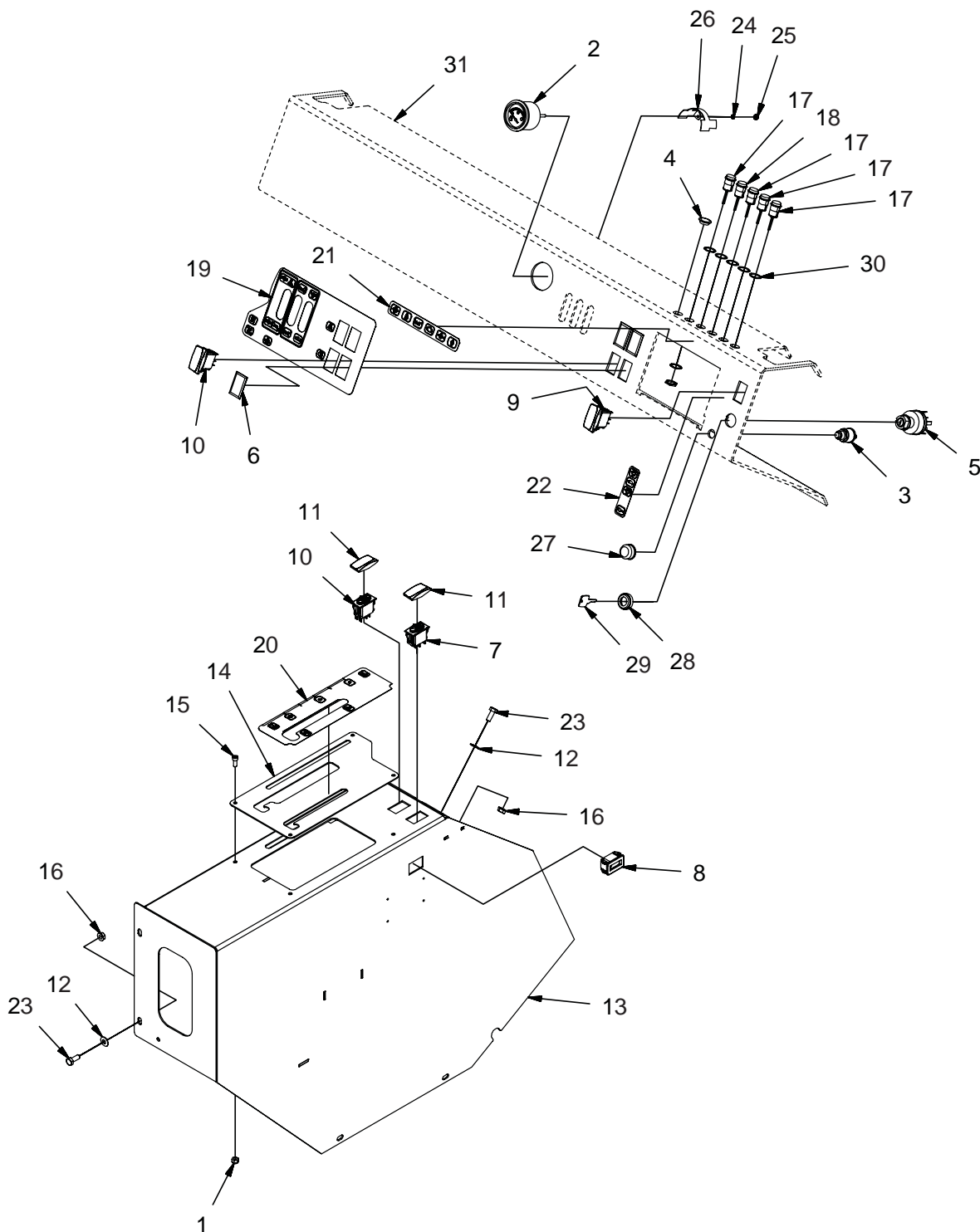
- 1:** Hydraulic cylinder
- 2:** Hose
- 3:** Hose end fitting
- 4:** Hose end fitting
- 5:** Hose end fitting
- 6:** Hose end fitting
- 7:** Hose end fitting
- 8:** Hose end fitting
- 9:** Hose end fitting
- 10:** Hose end fitting
- 11:** Hose end fitting
- 12:** Hose end fitting
- 13:** Hose end fitting
- 14:** Hose end fitting
- 15:** Hose end fitting
- 16:** Hose end fitting
- 17:** Hose end fitting
- 18:** Hose end fitting
- 19:** Hose end fitting
- 20:** Hose end fitting
- 21:** Hose end fitting
- 22:** Hose end fitting
- 23:** Hose end fitting

The diagram shows the following connections:

- 1:** Connected to **2** and **3**.
- 2:** Connected to **3**.
- 3:** Connected to **4**.
- 4:** Connected to **5**.
- 5:** Connected to **6**.
- 6:** Connected to **7**.
- 7:** Connected to **8**.
- 8:** Connected to **9**.
- 9:** Connected to **10**.
- 10:** Connected to **11**.
- 11:** Connected to **12**.
- 12:** Connected to **13**.
- 13:** Connected to **14**.
- 14:** Connected to **15**.
- 15:** Connected to **16**.
- 16:** Connected to **17**.
- 17:** Connected to **18**.
- 18:** Connected to **19**.
- 19:** Connected to **20**.
- 20:** Connected to **21**.
- 21:** Connected to **22**.
- 22:** Connected to **23**.

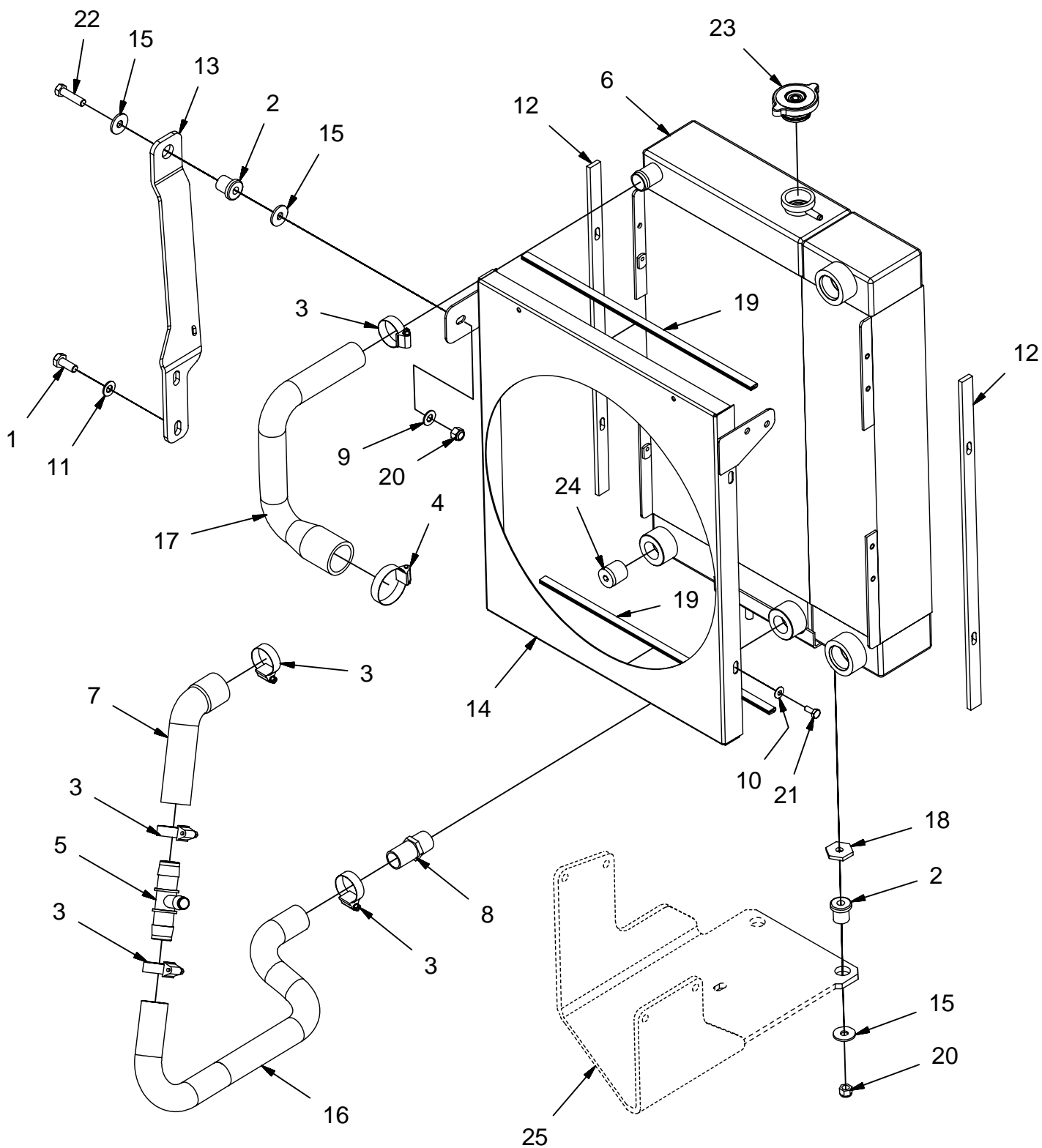
Parts List			
ITEM	PART NUMBER	QTY	DESCRIPTION
1	11038247	2	BLT-HH M8-125 X 25 STL ZINC
2	12040044	3	NUT, M6-1.00 ESN
3	12040051	6	NUT, M8-1.25 ESN
4	3302338	10	CLAMP, HOSE, .50
5	3342207	8	FITTING, ADAPTER, FUEL
6	3342209	1	FILTER, FUEL
7	3343082	1	CLAMP, HOSE
8	3343536	1	PUMP, FUEL
9	3343539	4	CLAMP, 2"
10	3343617	1	MANIFOLD, FUEL PRESS/TEMP
11	3401088	2	FTG-ADAPTER, FUEL 1/2-20 W/O-RING
12	3401089	1	FTG-ADAPTER, FUEL 3/8-24 W/O-RING
13	3401090	1	FITTING & GASKET FOR FUEL PUMP
14	600151	2	GROMMET, .63 ID .88 OD .25 T
15	600213	1	MOUNT, FUEL FILTER
16	600913	1	BOLT, M6-100 X 20 HH SS
17	600940	4	WASHER, M8 FENDER
18	600953	2	BOLT, M6-1.00 X 50 HH
19	620001	1	HOSE, FUEL, 5/16 ID X 12.00 LG, SAE30R7
20	620002	2	HOSE, FUEL, 5/16 ID X 10.00 LG, SAE30R7
21	620003	1	HOSE, FUEL, 5/16 ID X 17.00 LG, SAE30R7
22	620004	1	HOSE, FUEL, 5/16 ID X 36.00 LG, SAE30R7
23	717024	4	BOLT, M8-1.25 X 20 HH

**ENGINE GM 1.6L GAS - INSTRUMENT PANEL**



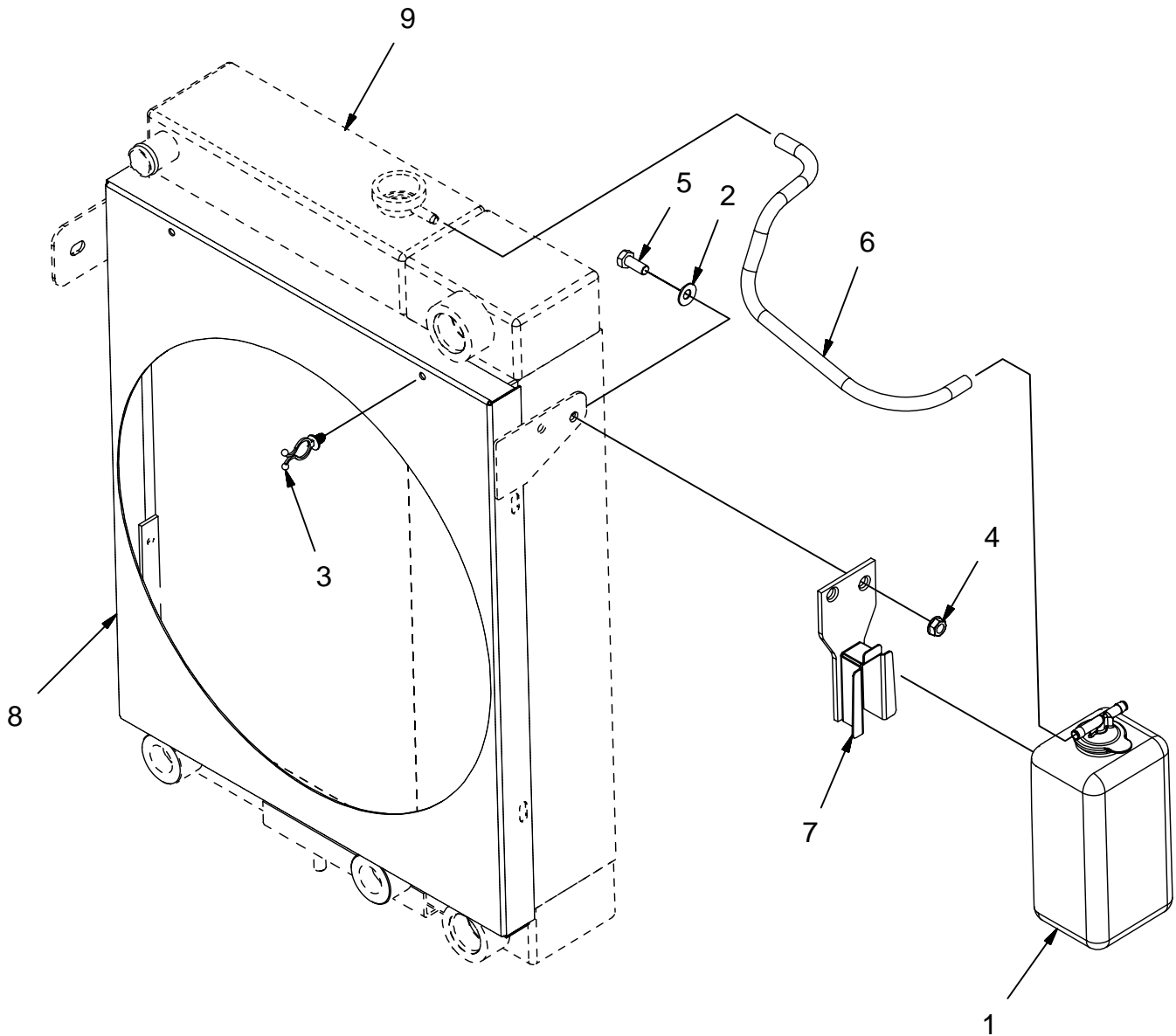
Parts List			
ITEM	PART NUMBER	QTY	DESCRIPTION
1	12040044	4	NUT, M6-1.00 ESN
2	3300382	1	GAUGE, FUEL
3	3300441	1	SWITCH, MOMENTARY
4	3301669	1	COVER, HOLE
5	3316100	1	KEYSWITCH
6	3323529	3	COVER
7	3335114	1	SWITCH, MOMENTARY
8	3336094	1	HOUR METER
9	3342703	1	SWITCH, 3-POSITION
10	3342705	2	SWITCH, DPST
11	3344038	2	SWITCH CAP
12	3400384	4	WASHER, 5/16 BELLEVILLE
13	600474	1	WELDMENT, CONSOLE
14	600560-1	1	PLATE, WEAR
15	600912	4	BOLT, M6-1.00 X 16 AHCS
16	600934	4	NUT, M8-1.25 FLNG
17	620069-1	4	LIGHT ASSY, INDICATOR RED - LED
18	620070-1	1	LIGHT ASSY, INDICATOR AMBER - LED
19	715922	1	DECAL, VALVE, ATLAS
20	715934	1	DECAL, BROOMS, ATLAS
21	715936	1	DECAL, WARNING LIGHTS, ATLAS
22	715937	1	DECAL, ENGINE, ATLAS
23	717024	4	BOLT, M8-1.25 X 20 HH
24	PART OF 3300382	2	LOCKWASHER, EXT #8
25	PART OF 3300382	2	NUT, #8-32
26	PART OF 3300382	1	RETAINER, GAUGE
27	PART OF 3300441	1	CAP, HORN SWITCH
28	PART OF 3316100	1	NUT, KEYSWITCH
29	PART OF 3316100	1	KEY
30	PART OF LED	5	SEAL FOR LED INDICATOR LIGHT
31	REF.	-	FRAME
	3301345-1	1	WIRE ASSY, FUEL GAUGE LIGHT
	748936	1	HARNESS, FUEL GAUGE

ENGINE GM 1.6L LPG AND GAS - RADIATOR



Parts List			
ITEM	PART NUMBER	QTY	DESCRIPTION
1	11038346	2	BOLT, M10-1.50 X 25 HH
2	3300465	3	ISOLATOR, VIB
3	3302193	5	CLAMP, HOSE, .75 - 1.25
4	3303255	1	CLAMP, HOSE, .88 - 1.38
5	3336081	1	TEE. BARB
6	3336679-1	1	RADIATOR - OIL COOLER
7	3341793	1	HOSE, ENG OUTLET
8	3344231	1	FITTING, RADIATOR
9	3400087	1	WASHER, 3/8
10	3400383	4	WASHER, 1/4 BELLEVILLE
11	3400385	2	WASHER, 3/8. BELLEVILLE
12	600198	2	SPACER, SHROUD
13	600199	1	SUPPORT, RADIATOR
14	600200	1	WELDMENT, SHROUD, 1.6 GM
15	600363	4	WASHER, ISOLATOR
16	600510	1	RADIATOR HOSE, LOWER
17	600812	1	HOSE, RADIATOR, UPPER, ATLAS
18	620030	2	WASHER, TAPPED
19	620064	2	SEAL, SHROUD
20	711380	3	NUT, FIBER INSERT 3/8-16
21	713001	4	SCREW, 1/4-20 X .625 HHC
22	713044	1	SCREW, 3/8-16 X 1.500 HHC
23	PART OF 3336679	1	RADIATOR CAP
24	REF	1	PLUG
25	REF.	-	MOUNT, FRONT ENGINE

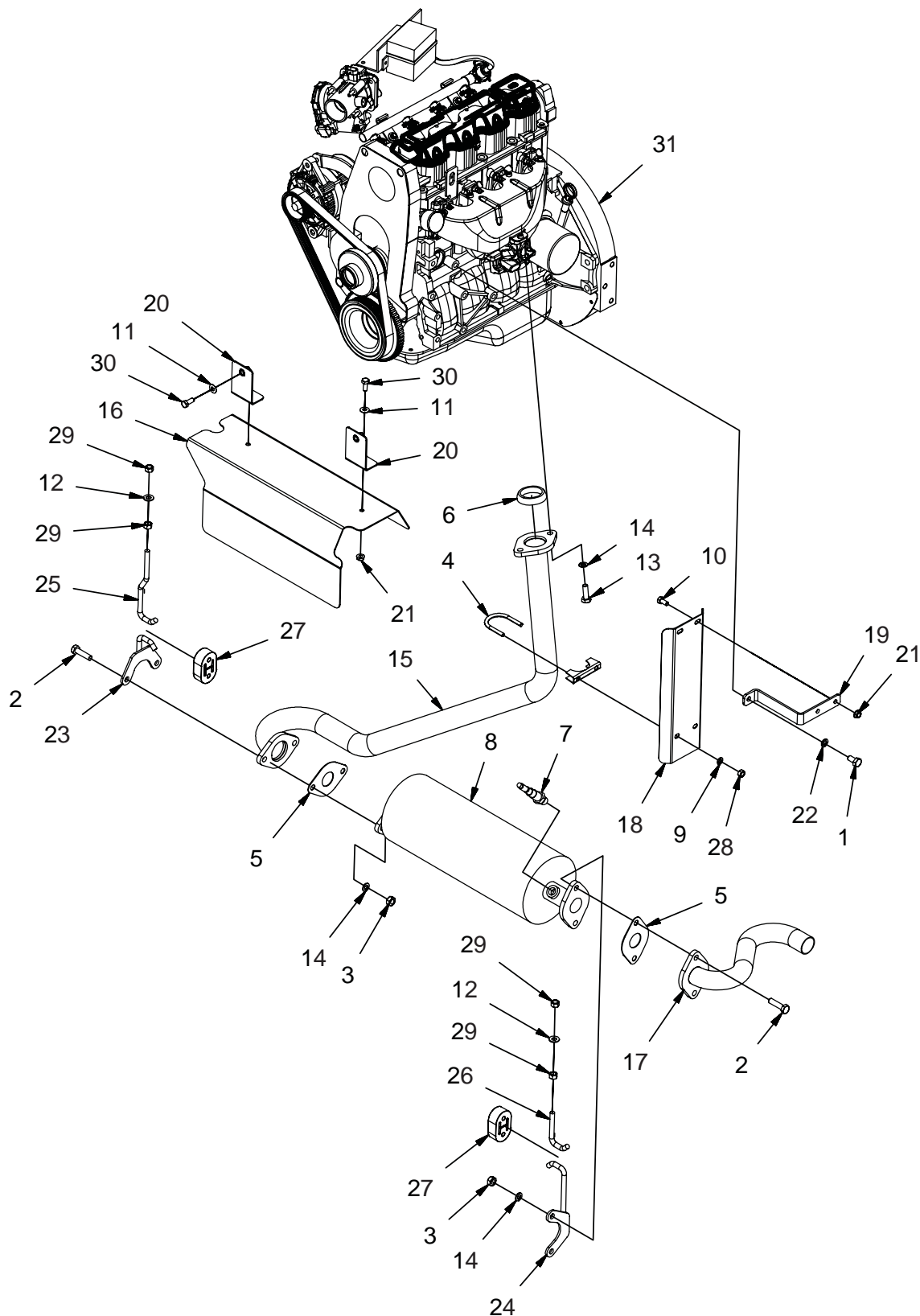
ENGINE GM 1.6L LPG AND GAS - RADIATOR OVERFLOW BOTTLE





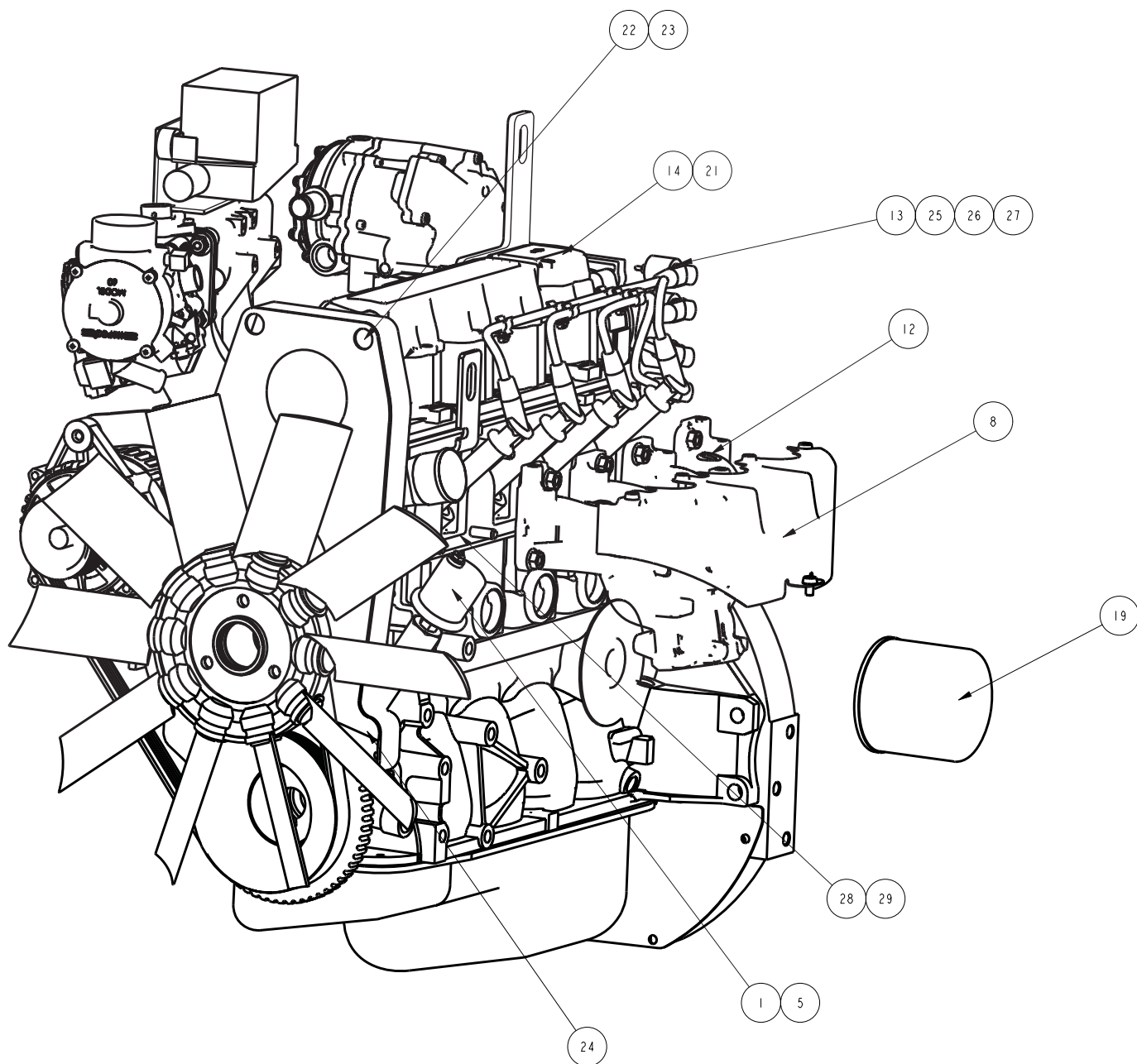
Parts List			
ITEM	PART NUMBER	QTY	DESCRIPTION
1	3318752	1	OVERFLOW BOTTLE KIT
2	3400384	2	WASHER, 5/16 BELLEVILLE
3	600581	1	CLAMP, WIRE CLIP
4	600934	2	NUT, M8-1.25 FLNG
5	717024	2	BOLT, M8-1.25 X 20 HH
6	PART OF 3318752	1	HOSE, OVERFLOW
7	PART OF 3318752	1	BRACKET, BOTTLE
8	REF.	-	SHROUD, RADIATOR
9	REF.	-	RADIATOR

ENGINE GM 1.6L LPG AND GAS - EXHAUST GROUP



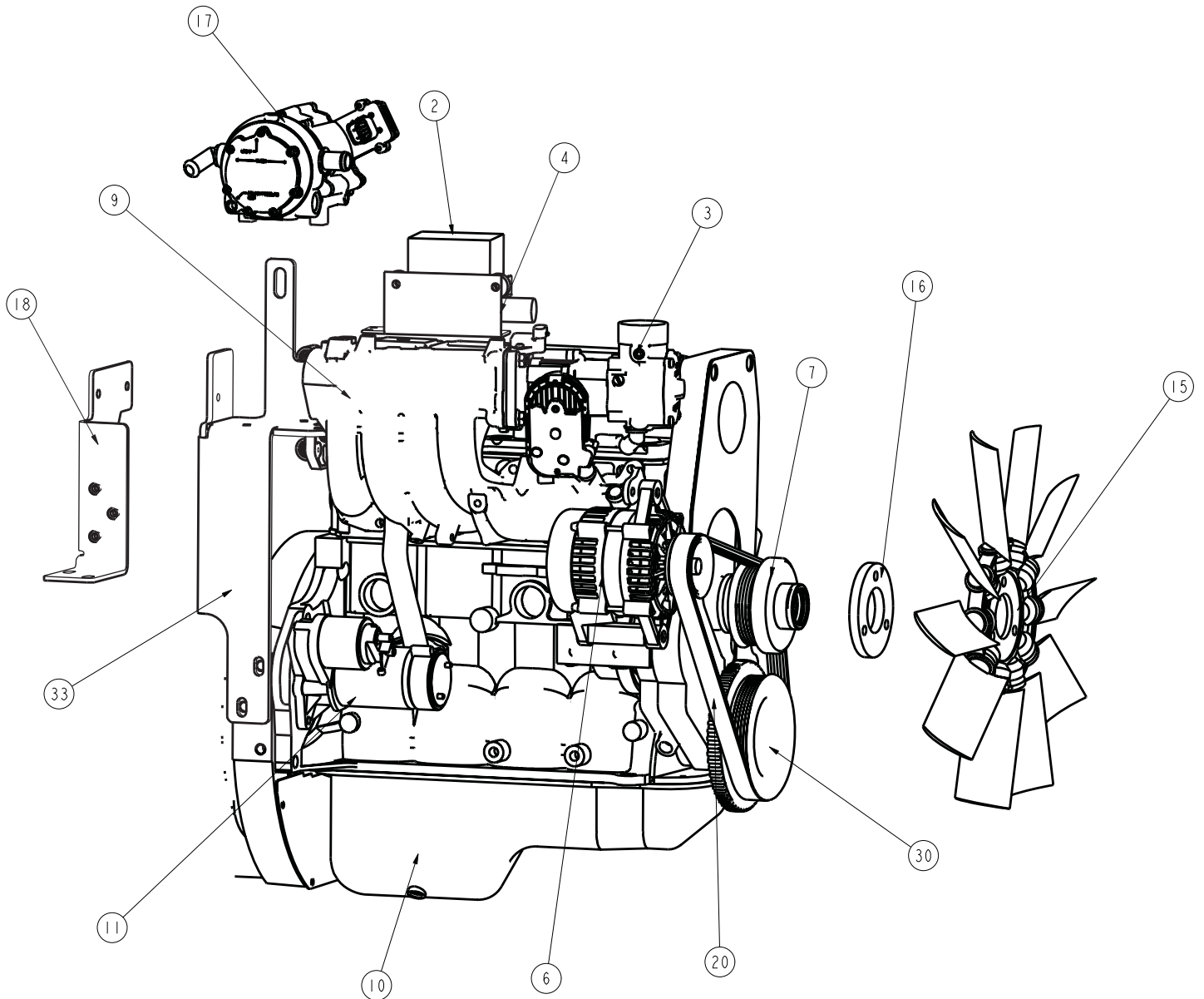
Parts List			
ITEM	PART NUMBER	QTY	DESCRIPTION
1	11038353	1	BOLT, M10-1.50 X 20 HH
2	11038395	4	BOLT, M10-1.50 X 40 HH
3	12022067	4	NUT, M10-1.50 HEX
4	3301640	1	CLAMP, 1.75
5	3333656	2	GASKET, EXHAUST
6	3343069	1	GASKET, EXHAUST RING
7	3343630	1	O2 SENSOR
8	3350056	1	MUFFLER - CONVERTER
9	3400102	2	LOCK WASHER, 5/16 HS MED
10	3400291	2	BOLT, M8-1.25 X 16 HH
11	3400384	4	WASHER, 5/16 BELLEVILLE
12	3400385	2	WASHER, 3/8. BELLEVILLE
13	3401051	2	BOLT, M10-1.50 X 30 HH
14	3401458	6	LOCK WASHER, M10
15	600495	1	EXHAUST PIPE
16	600497	1	HEAT SHIELD
17	600501	1	WELDMENT, TAILPIPE
18	600503	1	HEAT SHIELD
19	600504	1	BRACKET, HEAT SHIELD
20	600805-1	2	ASSEMBLY, SHIELD MNT
21	600934	4	NUT, M8-1.25 FLNG
22	600945	1	LOCK WASHER, M10
23	620197	1	WELDMENT, EXHAUST HANGER, FRONT
24	620199	1	WELDMENT, EXHAUST HANGER, REAR
25	620203	1	EXHAUST HANGER, UPPER FRONT
26	620204	1	EXHAUST HANGER, UPPER REAR
27	620205	2	EXHAUST ISOLATOR
28	711319	2	NUT, HEX 5/16-18
29	711328	4	NUT, HEX 3/8-16
30	717024	4	BOLT, M8-1.25 X 20 HH
31	REF	-	ENGINE

ENGINE GM 1.6L LPG - OIL FILTER, PLUG WIRES & WATER PUMP



ENGINE GM 1.6L LPG - OIL FILTER, PLUG WIRES & WATER PUMP			
ITEM	PART NO.	REQ'D	DESCRIPTION
1	3342078	1	ADAPTER-1.6L GM OIL SENDER
5	3341069	1	SENDER-OIL PRESSURE 12V
8	3343864	1	SHIELD EXHAUST MANIFOLD
12	3343657	1	MANIFOLD-GM 1.6L EXHAUST
13	3342410	1	WIRE-SPLG #1CYL GM 1.6L
14	3342354	1	COVER-CM/SHF HSG GM 1.6L
19	3342201	1	FILTER-OIL (AC-DELCO)
21	3342356	1	GASKET-CAM/SHAFT HSG COVER GM 1.6L
22	3343656	1	FRONT COVER FOR TIMING BELT GM 1.6L
23	3342385	1	BELT-TMG (111 TEETH) GM 1.6L (Behind Cover Not Shown On Drawing)
24	3343668	1	WATER PUMP GM 1.6 Kit (Behind Cover Not Shown On Drawing)
25	3342411	1	WIRE-SPLG #2CYL GM 1.6L
26	3342412	1	WIRE-SPLG #3CYL GM 1.6L
27	3342413	1	WIRE-SPLG #4CYL GM 1.6L
28	3343660	1	CYLINDER HEAD-GM 1.6L
29	3342365	1	GASKET KIT FOR GM 1.6L CYLINDER HEAD

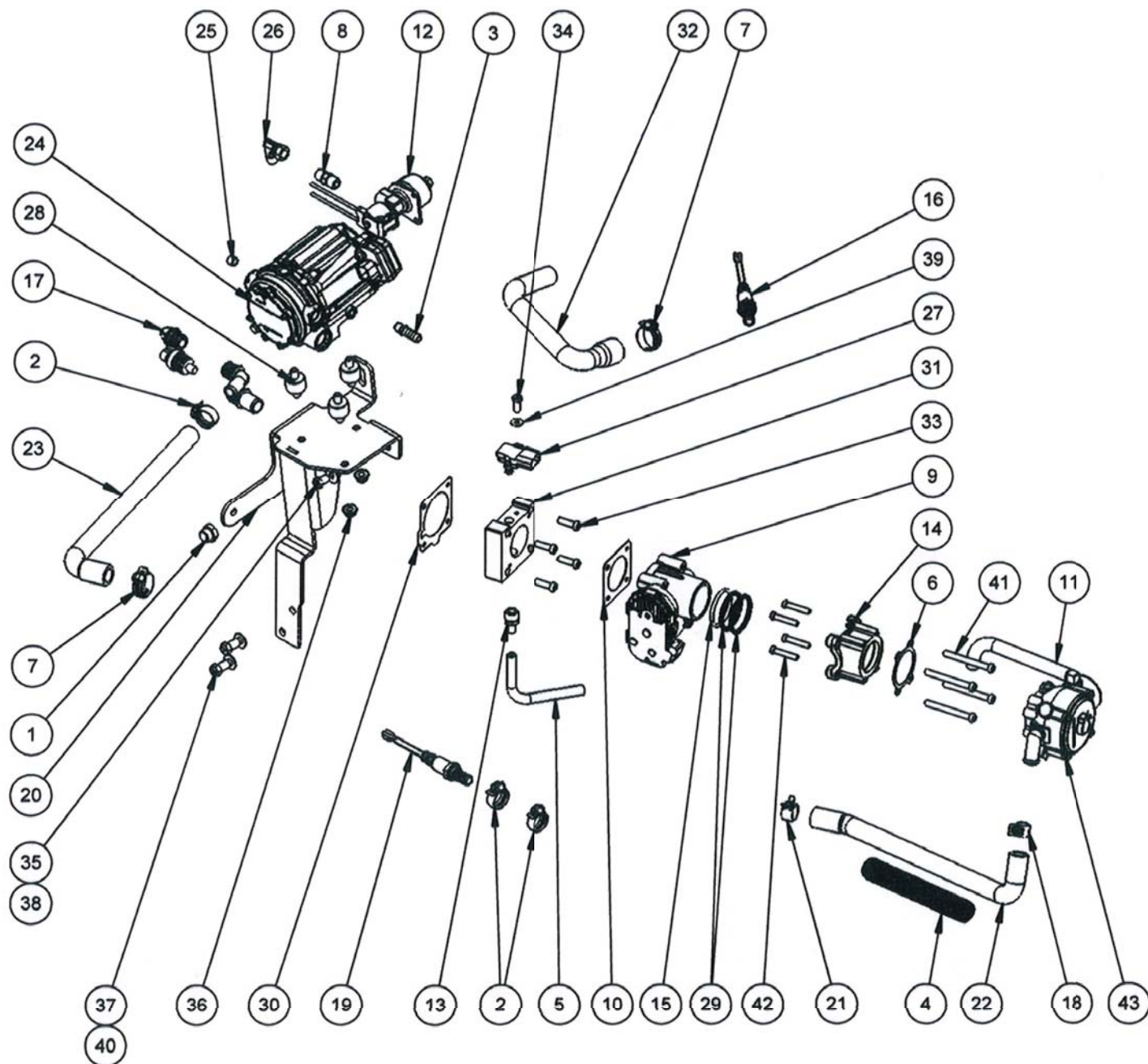
**ENGINE GM 1.6L LPG - FAN, ALTERNATOR BELT & STARTER**



ENGINE GM 1.6L LPG - FAN, ALTERNATOR BELT & STARTER			
ITEM	PART NO.	REQ'D	DESCRIPTION
2	3343866	1	BOX-FUSE, 1.6 TIER 2
3	3343627	1	THROTTLE BODY-GM 1.6L BOSCH 40 (See Fuel System)
4	3343865	1	BRACKET-FUSE BOX, 1.6 TIER 2
6	3343633	1	ALTERNATOR-GM 1.6L 7SI (DF SUR-BELT)
7	3343611	1	PULLEY FOR FAN-GM 1.6L
9	3343645	1	KIT-GM 1.6L INTAKE MANIFOLD
10	3343662	1	PAN-GM 1.6L OIL
11	3342333	1	STARTER-(2.041) GM 1.6L Before Engine SN1P6L13151 and Earlier
11	3336742	1	STARTER After Engine SN1P6L13151 and Later
15	3342304	1	FAN-PUSHER 16" GM 1.6L
16	3343623	1	SPACER-GM 1.6L FAN PUSHER .85"
17	3339848	1	REGULATOR/EPR (See Fuel System)
20	3343634	1	BELT-GM 1.6L FAN POLY-6V 39"
22	3343656	1	GM 1.6L TIMING BELT FRONT
30	3342317	1	PULLEY-CR/SHF GM 1.6L
33	3339844	1	BRACKET, EPR
-	3343519	1	ECU-GM1.6L, LP TIER 2 (NOT SHOWN)



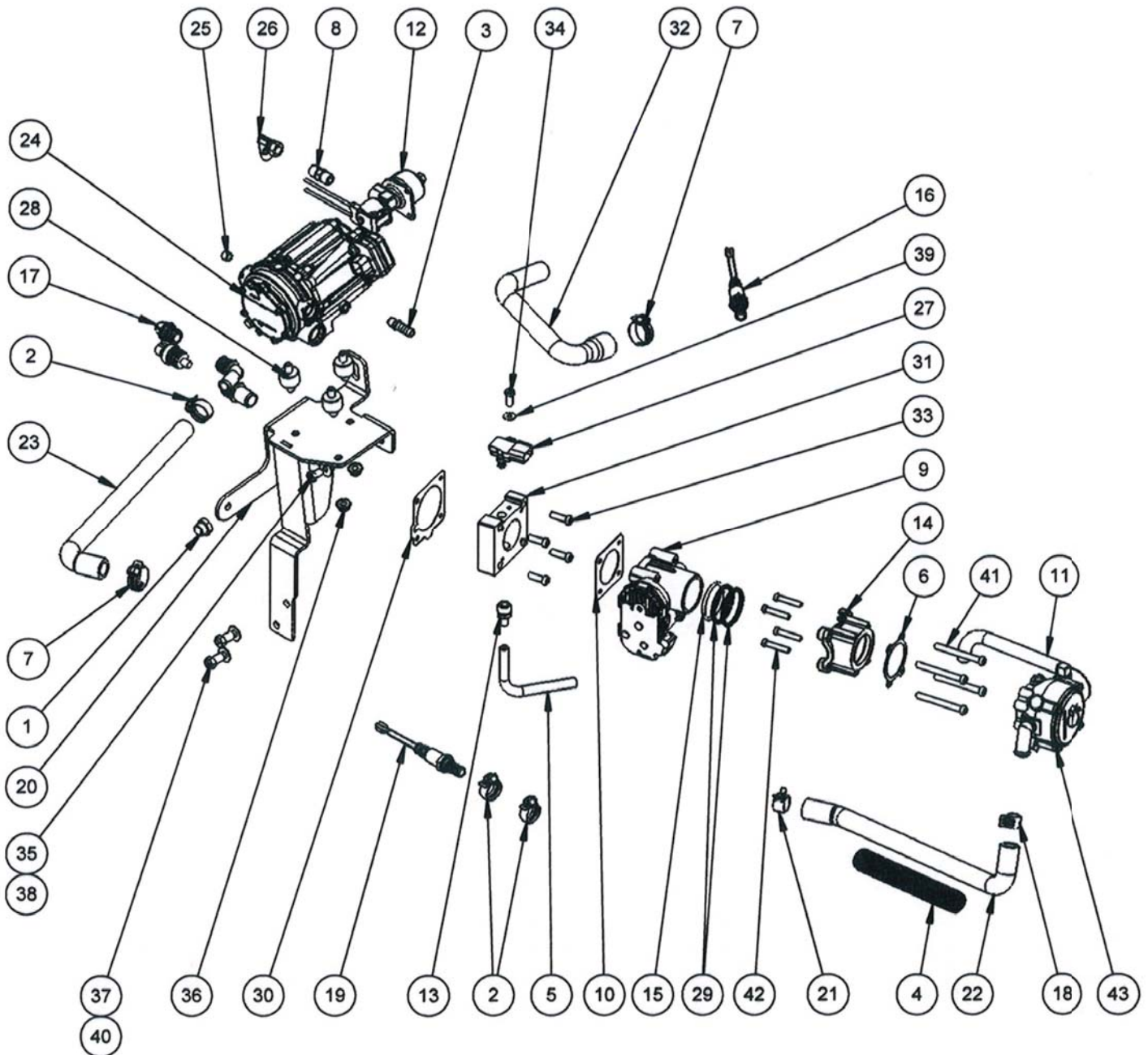
**ENGINE GM 1.6L - LPG FUEL SYSTEM T2**





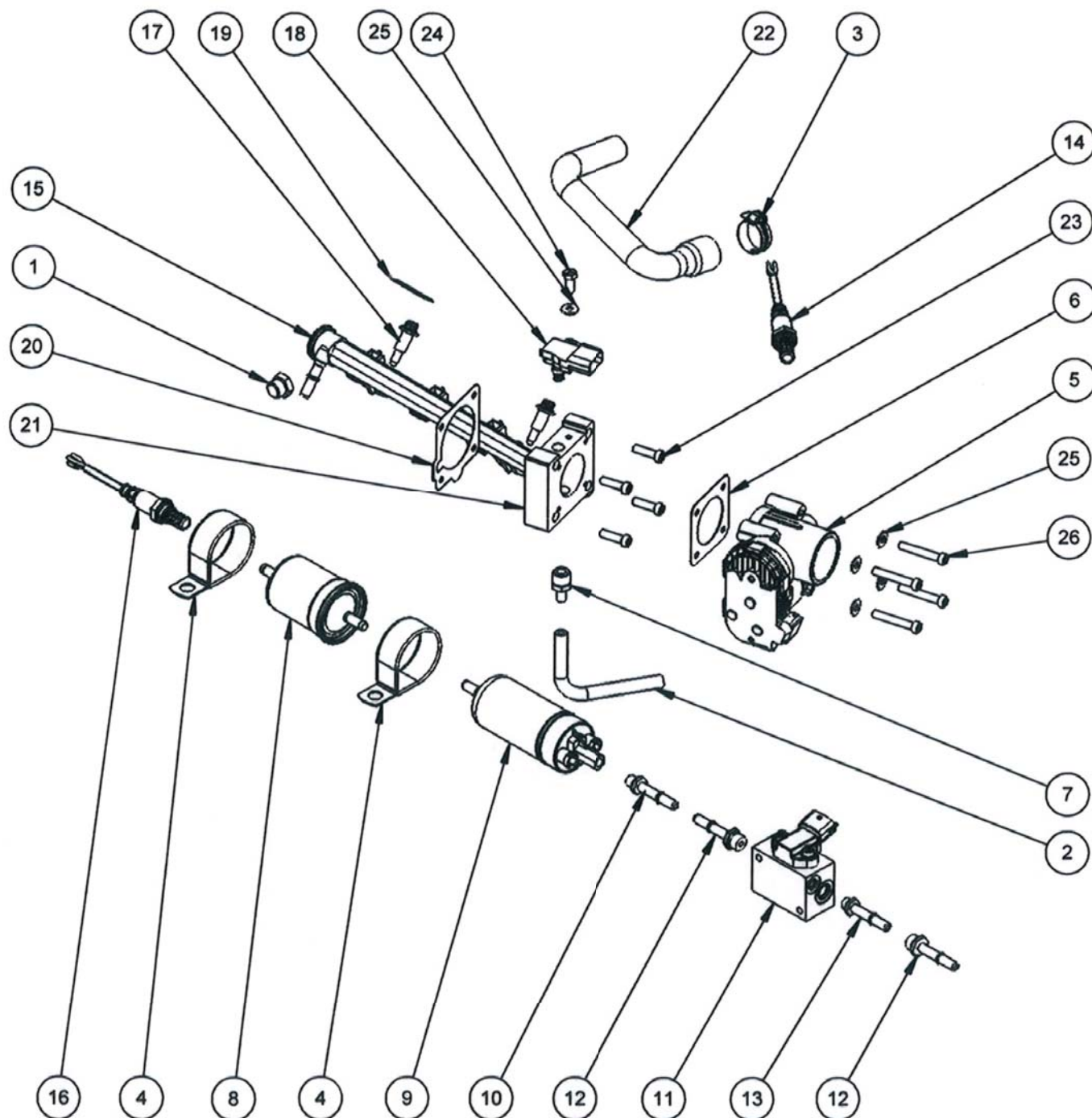
ENGINE GM 1.6L - LPG FUEL SYSTEM T2			
ITEM	PART NO.	REQ'D	DESCRIPTION
1	3339831	1	PLUG-M16 INTAKE MANIFOLD GM T2
2	3339843	3	CLAMP-WORM DRIVE (1/2" WIDTH) HOSE CLAMP (SAE 10) 9/16
3	3339844	1	*INTENTIONAL NUMBER SKIP*
4	3339845	1	LOOM-SPLIT 1" GM T2
5	3339832	1	HOSE-VACUUM 7/32" GM T2
6	3339846	1	GASKET-ADAPTER GM T2
7	3339833	2	CLAMP-WORM DRIVE (1/2" WIDTH) HOSE CLAMP (SAE 12) 11/16
8	3339847	1	NIPPLE-1/4 NPT X 1-3/8 HEX GM T2
9	3339822	1	THROTTLE BODY-40MM GM T2
10	3339834	1	GASKET-4 BOLT, TB GM T2
11	3339848	1	HOSE-FUEL 3/8 DIA. GM T2
12	3339849	1	VALVE-LOCK-OFF GM T2
13	3339835	1	FTG-VAC M16-1.5-6H GM T2
14	3339850	1	ADAPTER- GM T2
15	3339851	1	O-RING-MXR ADPTR 40MM/100 GM T2
16	3343629	1	SENSOR,02 @ MANIFOLD
17	3339852	2	FTG-KIT, EPR GM T2
18	3339853	1	CLAMP-5/8, HOSE (SPRING TYPE) GM T2
19	3343630	1	SENSOR,02 POST CAT
20	3339854	1	BRKT-WELDMENT, REGULATOR MOUNT GM T2
21	3339855	1	CLAMP-3/4, HOSE (SPRING TYPE) GM T2
22	3339856	1	HOSE-MOLDED FUEL GM T2
23	3339857	1	HOSE-MOLDED FUEL GM T2 #2
24	3339858	1	REGULATOR-ELECT PRESS 2007 UL GM T2

ENGINE GM 1.6L - LPG FUEL SYSTEM T2 (CONTINUED)



ENGINE GM 1.6L - LPG FUEL SYSTEM T2 (CONTINUED)			
ITEM	PART NO.	REQ'D	DESCRIPTION
25	3339859	1	PLUG-1/8NPT X 3/16 INTERN HEX GM T2
26	3339860	1	FTG-1/4NPT X 1/4-18 CONNECTOR GM T2
27	3339836	1	SENSOR-T MAP GM T2
28	3339861	2	ISOLATOR-EPR GM T2
29	3339862	1	SEAL-QUAD MXR ADPTR 40MM/100 GM T2
30	3339837	1	GASKET-INTAKE MANIFOLD/ADAPTER GM T2
31	3339838	1	ADAPTER-INTAKE/THROTTLE BODY GM T2
32	3339839	1	HOSE-BREATHING GM T2
33	3339840	4	BOLT-M6 X 1.0 X 25, SKT HD BOLT, GR 12.9 V GM T2
34	3339841	1	BOLT-1/4-20 X 3/4 HX HD BOLT GR5 GM T2
35	3339863	1	BOLT-M8 X 1.25 X 15 HX HD BOLT GR 8.8 GM T2
36	3339864	1	NUT-M8 X 1.25 , HX NUT FLANGED GM T2
37	3339865	1	BOLT-3/8-16 X 3/4 HX HD BOLT, GR 5 GM T2
38	3339866	1	WASHER-5/16 FLAT WASHER (HARDENED) GM T2
39	3339842	1	WASHER-1/4 FLAT WASHER (HARDENED) GM T2
40	3339867	1	WASHER-3/8 FLAT WASHER (HARDENED GRL9)BOLT-M6 X 1/0 X 70
41	3339868	4	BOLT-M6 X 1.0 X 70, SKT HD BOLT GM T2
42	3339869	4	BOLT-M5-0.8 X 35 SKT HD BOLT GM T2
43	3339870	1	MIXER-CERTIFIED GM T2

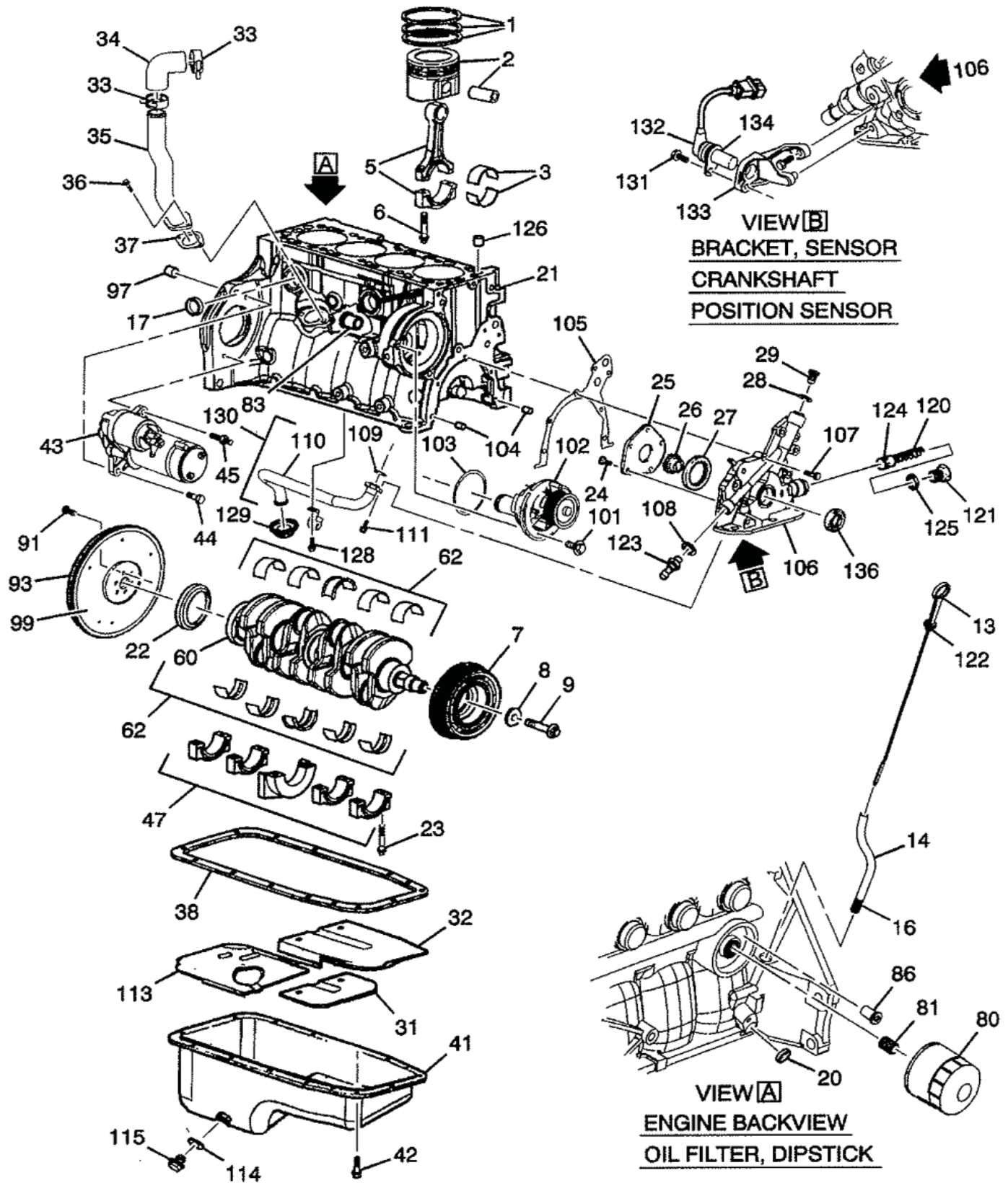
ENGINE GM 1.6L - GASOLINE FUEL SYSTEM T2



ENGINE GM 1.6L - GASOLINE FUEL SYSTEM T2			
ITEM	PART NO.	REQ'D	DESCRIPTION
1	3339821	1	PLUG-M16 INTAKE MANIFOLD GM T2
2	3339825	1	HOSE-VACUUM 7/32" GM T2
3	3339827	1	CLAMP-WORM DRIVE 1/2" WIDTH HOSE CLAMP (SAE 12) 11/16 TO 1-1/4
4	3339828	2	CLAMP-2.25" GM T2
5	3339830	1	THROTTLE BODY-40MM GM T2
6	3339831	1	KET-4 BOLT, TB GM T2
7	3339834	1	FTG-VAC M16-1.5-6H GM T2
8	3342209	1	FUEL FILTER
9	3343536	1	FUEL PUMP
10	3339835	1	FTG-FITTING & KET FOR FUEL PUMP GM T2
11	3339837	1	MANIFOLD-FUEL TEMP/RETURN GM T2
12	3339839	2	FTG-(-6) STOR 5/16 SAE J2044 GM T2
13	3339840	1	FTG-(-3) STOR 5-16 SAE J2044 GM T2
14	3343629	1	SENSOR O2 @ MANIFOLD
15	3339843	1	RAIL-FUEL GM T2
16	3343630	1	SENSOR O2 POST CAT
17	3339849	2	BOLT-ECIAL FUEL RAIL GM T2
18	3339852	1	SENSOR-T MAP GM T2
19	3339855	1	LABEL-UL RECOGNIZED FOR PART 32501263 GM T2
20	3339856	1	KET-INTAKE MANIFOLD/ADAPTER GM T2
21	3339857	1	ADAPTER-INTAKE/THROTTLE BODY GM T2
22	3339858	1	HOSE-BREATHER GM T2
23	3339859	4	BOLT-M6 X 1.0 X 25, SKT HD BOLT, GR 12.9 V GM T2
24	3339860	1	BOLT-1/4-20 X 3/4 HX HD BOLT GR5 GM T2
25	3339865	4	WASHER-1/4 FLAT WASHER (HARDENED) GM T2
26	3339867	4	SCR-M6 X 1.0 X 45 SKT HD GM T2

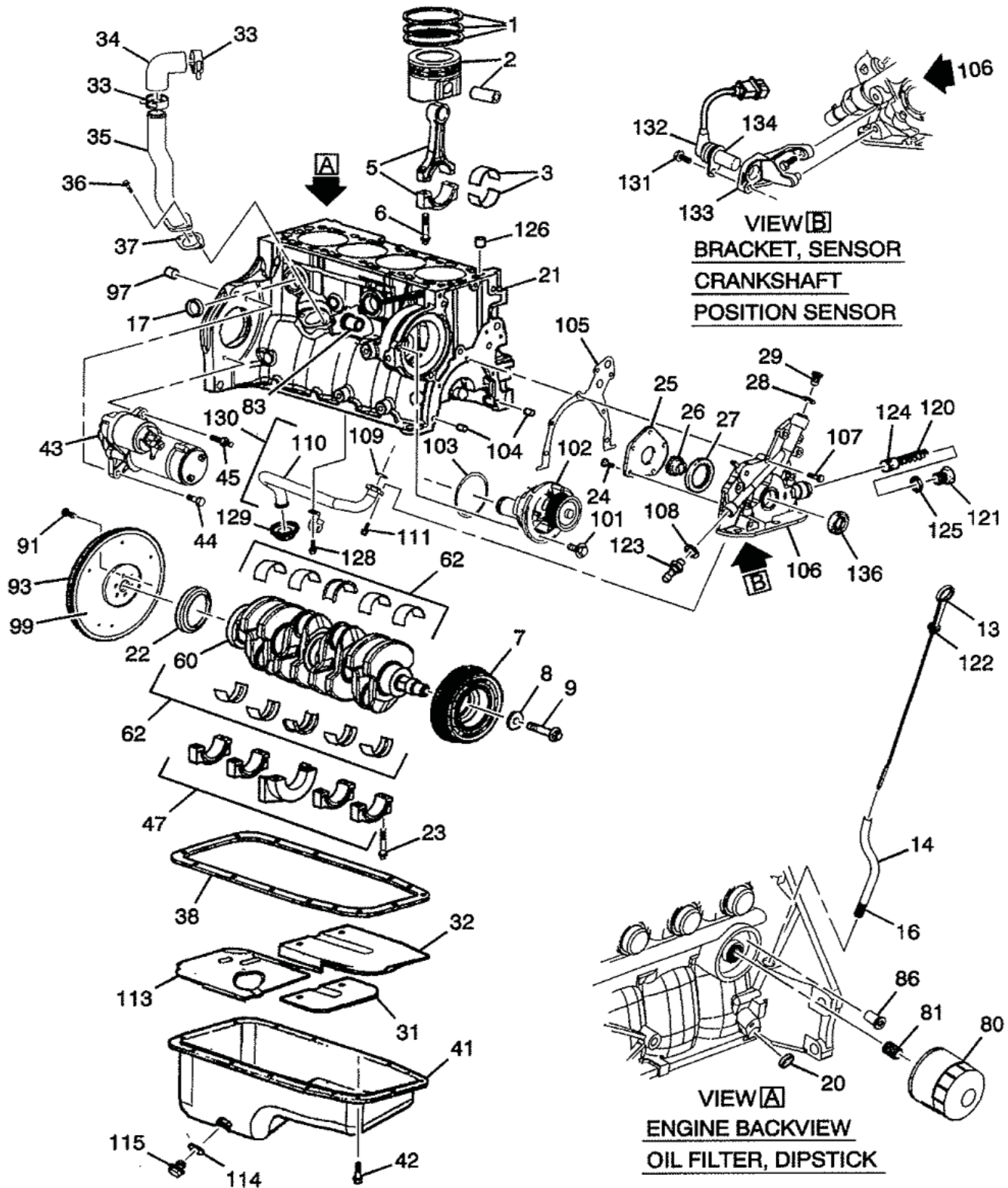


ENGINE GM 1.6L - ENGINE COMPONENT BREAKDOWN ILLUSTRATION 1



DRIVE MOTOR STEERING CYLINDER AND FORK			
ITEM	PART NO.	REQ'D	DESCRIPTION
1	3338733	4	RING KIT, PISTION (STD)
2	3338734	1	PISTON WFPIN (STD) (INELS 1,5,6)
3	3338735	1	BEARING KIT, CONNECTING ROD (STD)
5	3338736	1	ROD, CONNECTING (ALSO PART OF 2)
6	3338737	8	BOLT, CONNECTING ROD (ALSO PART OF 2)
7	3342317	1	PULLEY, CRANKSHAFT
8	3338738	1	WASHER, CRANKSHAFT PULLEY
9	3338739	1	BOLT, CRANKSHAFT PULLEY
13	3338740	1	DIPSTICK
14	3338741	1	TUBE, DIPSTICK
16	3338742	AR	SEALER, CAMSHAFT BEARING HOLD PLUG
17	3338743	6	PLUG, ENG BLOCK COOL DRAIN HOLE
20	3338744	AR	PLUG, ENG BLOCK CORE HOLE
21	3338745	1	ENGINE, SERVICE
22	3343659	1	SEAL, CRANKSHAFT REAR OIL
23	3338746	10	BOLT, CRANKSHAFT BEARING CAP
24	3338747	5	BOLT, OIL PUMP COVER (ALSO PART OF 106)
25	3338748	1	COVER, OIL PUMP (ALSO PART OF 106)
26	3338749	1	GEAR, OIL PUMP DRIVE (ALSO PART OF 106)
27	3337397	1	GEAR, OIL PUMP DRIVE (ALSO PART OF 106)
28	3342329	1	SEAL, OIL PUMP HOUSING
29	3338750	1	PLUG, OIL PUMP HOUSING
30	3338751	1	BAFFLE, OIL PAN
	3338752	1	BAFFLE, OIL PAN
31	N/A	-	PART OF ITEM 41
32	3338754	1	BAFFLE, OIL PAN (ALSO PART OF 41)
33	3338755	2	CLAMP, PCV HOSE
34	3343669	1	HOSE, PCV
35	3338756	1	TUBE, PCV
36	3338757	2	BOLL, PCV TUBE

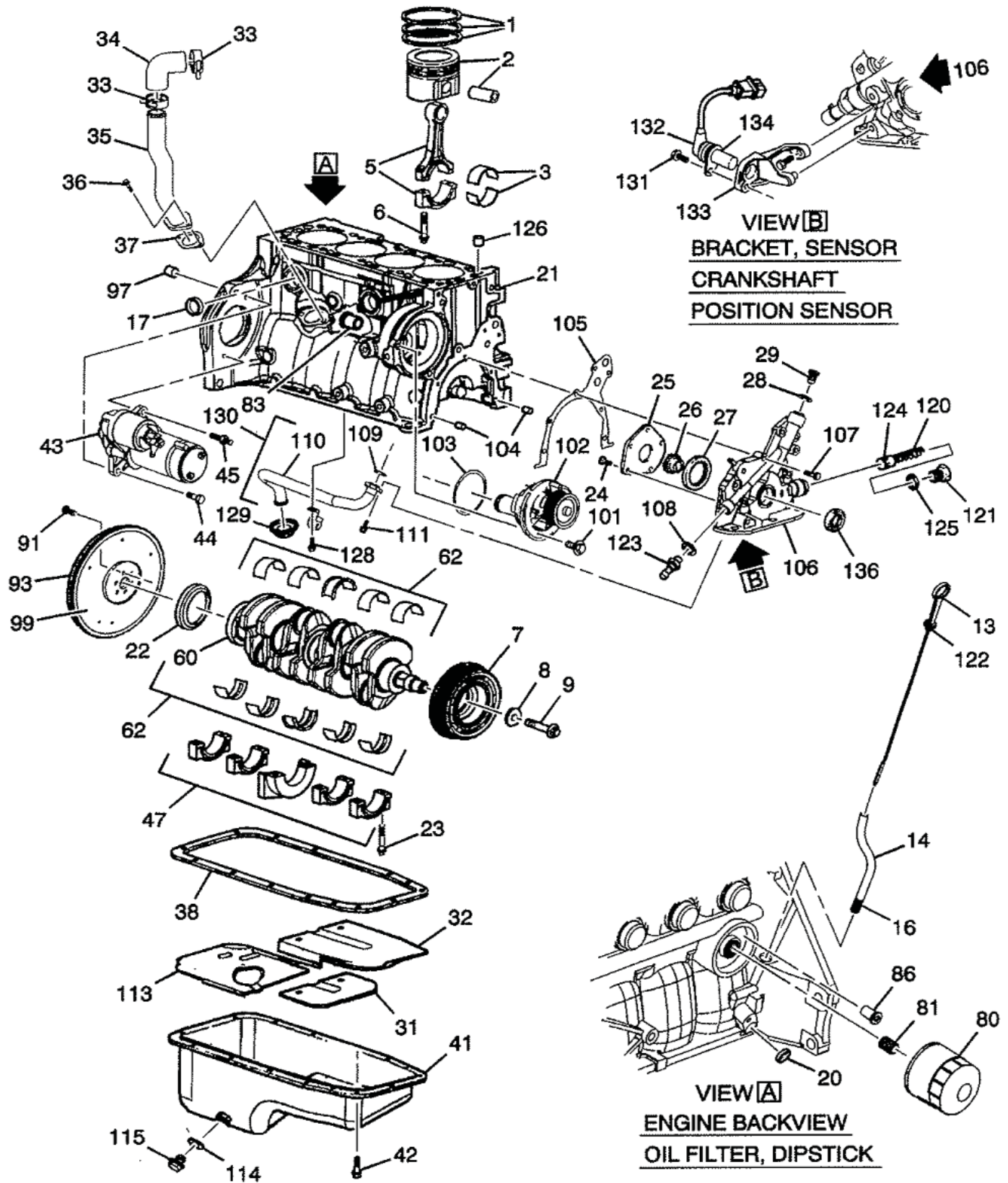
ENGINE GM 1.6L - ENGINE COMPONENT BREAKDOWN ILLUSTRATION 1 (CONTINUED)





ENGINE DIESEL KUBOTA V1505 - AIR CLEANER			
ITEM	PART NO.	REQ'D	DESCRIPTION
37	3342331	1	GASKET, PCV TUBE
38	3338758	1	GASKET, OIL PAN
41	3343662	1	PAN, OIL (INCLS 31, 113,114,115)
42	3338759	15	BOLT, OIL PAN
43	3342333	1	STARTER (BOSCH TYPE), BEFORE S/N 1P6L1315
	3336742	1	STARTER (DELCO TYPE), AFTER S/N 1P6L1315
44	3343613	1	BOLT, STARTER
45	3343612	1	STUD, STARTER
60	3338760	1	CRANKSHAFT
62	3338761	4	BEARING KIT, CRANKSHAFT (POSN#1,2,4,5) (.25MM GREEN)
	3338762	4	BEARING KIT, CRANKSHAFT (POSN#3) (STD BROWN)
	3338763	4	BEARING KIT, CRANKSHAFT (POSN#1,2,3,4,5) (STD BRN/BUE)
	3338764	4	BEARING KIT, CRANKSHAFT (POSN#4) (.50MM GREEN/BLUE)
	3338765	4	BEARING KIT, CRANKSHAFT (POSN#3) (STD GREEN)
	3338766	4	BEARING KIT, CRANKSHAFT (POSN# 1,2,4,5) (STD BROWN)
66	3338767	1	VALVE, OIL FILTER BYPASS
80	3342201	1	FILTER, OIL
81	3343655	1	FITTING, OIL FITTER
82	3338768	1	SPROCKET, WATER PUMP
91	3338769	6	BOLT, FLYWHEEL
97	3338770	2	PIN, TRANS LOCK
99	3338771	1	FLYWHEEL
101	3338772	3	BOLT, WATER PUMP COVER
102	3343668	1	PUMP KIT, WATER
103	3338773	1	SEAL, WATER PUMP COVER
104	3338774	2	PIN, OIL PUMP HOUSING LOCK
105	3337396	1	GASKET, OIL PUMP
106	3338775	1	PUMP, OIL (INCLS: 24,25,26,27,121,125)
107	3338776	6	BOLL. OIL PUMP
108	3338777	1	SEAL, OIL PAN DRAIN PLUG
109	3338778	1	SEAL, OIL PUMP SUE PIPE

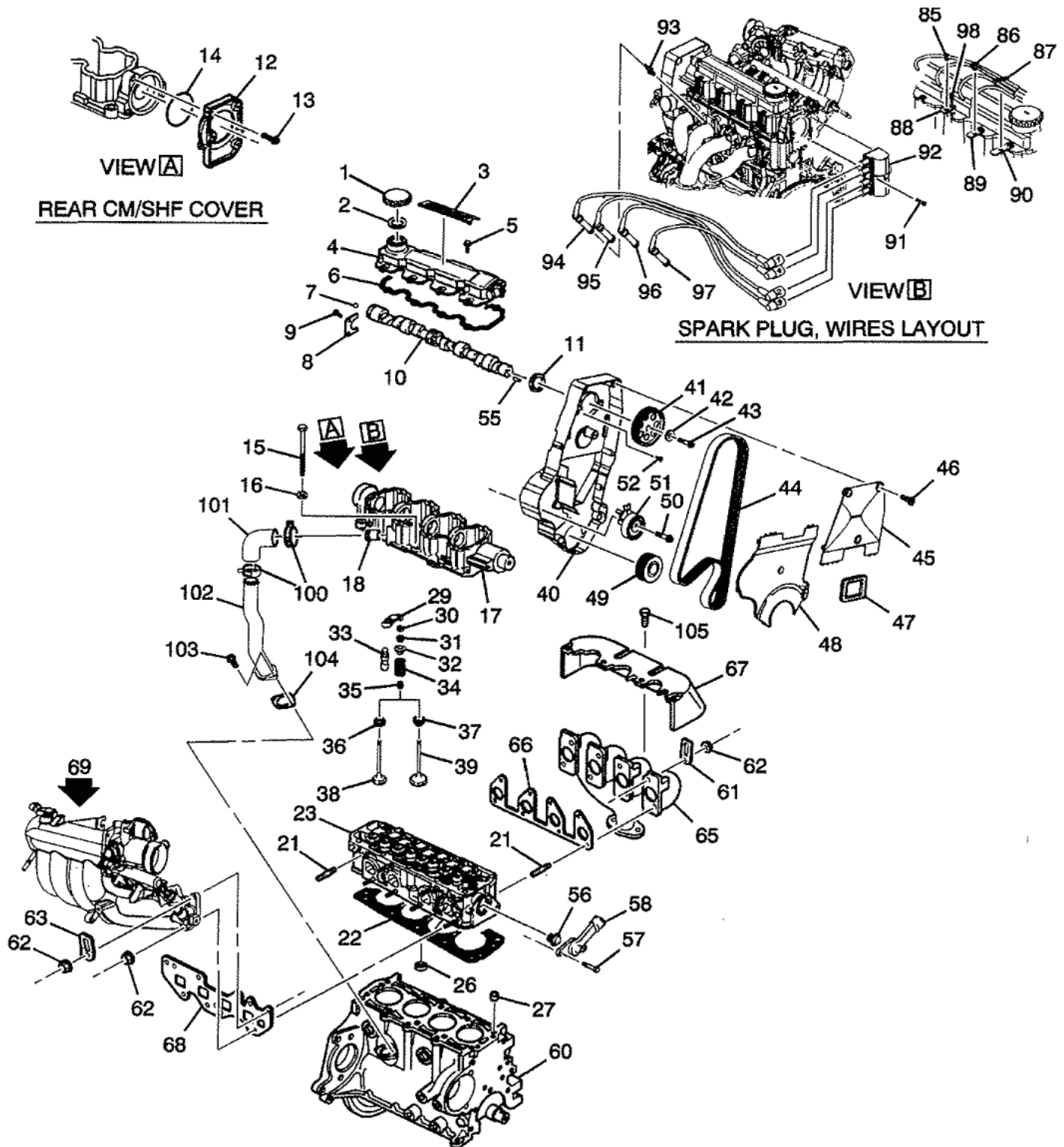
ENGINE GM 1.6L - ENGINE COMPONENT BREAKDOWN ILLUSTRATION 1 (CONTINUED)



**ENGINE GM 1.6L - ENGINE COMPONENT BREAKDOWN ILLUSTRATION 1 (CONTINUED)**

ITEM	PART NO.	REQ'D	DESCRIPTION
110	3338779	1	PIPE, OIL PUMP SUE (PART OF 130)
111	3338780	2	BOLL, OIL PUMP SCREEN
112	3338781	1	BOLT, OIL PUMP SCREEN BRACKET
113	3338782	1	BAFFLE, OIL PAN
	3338783	1	BAFFLE, OIL PAN
114	3338784	1	SEAL, OIL PAN DRAIN PLUG (ALSO PART OF 41)
115	3343651	1	PLUG, OIL PAN DRAIN (ALSO PART OF 41)
120	3338785	1	SPRING, OIL PRESSURE RELIEF VALVE (ALSO PART OF 106)
121	3338786	1	PLUG, OIL PRESSURE RELIEF VALVE BORE (PART OF 106)
122	3338787	1	SEAL, OIL FILLER CAP (PART OF 13)
123	3343661	1	SWITCH, ENG OIL PRESSURE INDICATOR
124	3338788	1	VALVE, OIL PRESSURE RELIEF
125	3338789	1	GASKET, OIL PRESSURE RELIEF VALVE BORE PLUG (PART OF 106)
126	3338790	2	PIN, CAMSHAFT HOUSING LOCK
128	3338791	1	BRACKET, OIL PUMP SCREEN
129	N/A		PART OF ITEM 130
130	3338793	1	SCREEN, OIL PUMP (INCLS: 110,129)
131	3338794	1	BOLT, CRANKSHAFT POSN SENSOR BRACKET
132	3342351	1	SENSOR, CRANKSHAFT POSN
133	3338795	1	BRACKET, CRANKSHAFT POSN SENSOR LEAD CLIP
134	3338796	3	BOLT, CRANKSHAFT POSN SENSOR
136	3337398	1	SEAL, OIL PUMP

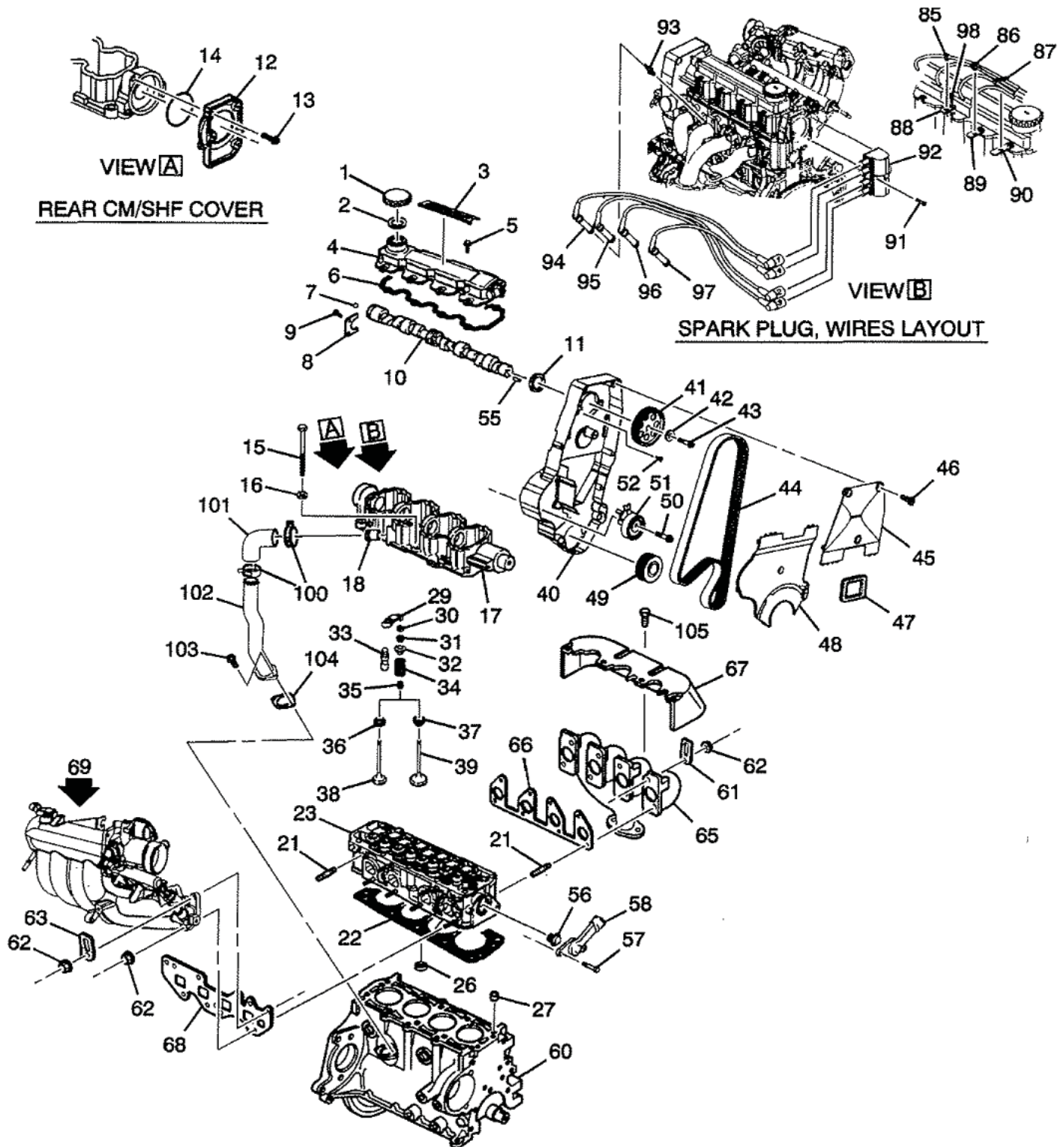
ENGINE GM 1.6L - ENGINE COMPONENT BREAKDOWN ILLUSTRATION 2



HOPPER FILTER, SHAKER			
ITEM	PART NO.	REQ'D	DESCRIPTION
1	3342352	1	CAP, OIL FILLER (INCLUDES ITEM 2 SEAL)
2	3338688	1	SEAL, OIL FILLER CAP
3			PART OF ITEM 4
4	3342354	1	COVER, CAMSHAFT HOUSING
5	3338689	8	BOLT, OIL
6	3342356	1	GASKET, CAMSHAFT HOUSING COVER
7	3338690	2	BALL. CAMSHAFT OIL RSTR (ALSO PART OF 10)
8	3338691	1	RETAINER, CAMSHAFT
9	3342363	2	BOLT, CAMSHAFT RET.
10	3338692	1	CAMSHAFT (INCLS: 7,55)
11	3342361	1	SEAL, CAMSHAFT
12	3338693	1	COVER, CAMSHAFT HOUSING
13	3338694	3	BOLT, CAMSHAFT REAR COVER
14	3342364	1	SEAL, CAMSHAFT HOUSING COVER BOLT
15	3343658	10	BOLT, CYLINDER HEAD
16	3338695	1	WASHER, CAMSHAFT SPROCKET
17	3338696	1	HOUSING, CAMSHAFT
18	3338697	1	TUBE.PCV
21	3342368	5	STUD, INTAKE MANIFOLD
22	3342365	1	GASKET KIT. CYLINDER HEAD
23	3343660	1	HEAD. CYLINDER
26	3343664	4	SEAT, EXHAUST VALVE
	3343665	4	SEAT, EXHAUST VALVE (0.2MM OS)
	3343666	4	SEAT. EXHAUST VALVE (0.4MM OS)
	3343667	4	SEAT, EXHAUST VALVE
27	3338698	2	PIN, CAMSHAFT HOUSING LOCK
29	3342371	ARM,	VALVE ROCKER
30	3338699	8	SEAT, VALVE ROCKER ARM VALVE
	3338700	8	SEAT, VALVE ROCKER ARM VALVE (CUP SHAPE 19X29X7)
31	3343663	16	KEY, VALVE STEM
32	3342374	4	CAP, VALVE SPRING
33	3338701	8	ADJUSTERM, HYDRAULIC VALVE LASH
34	3338702	8	SPRING, VALVE (INTAKE AND EXHAUST)
35	3343670	8	SEAL, VALVE STEM OIL
36	3338703	4	ROTATOR, VALVE

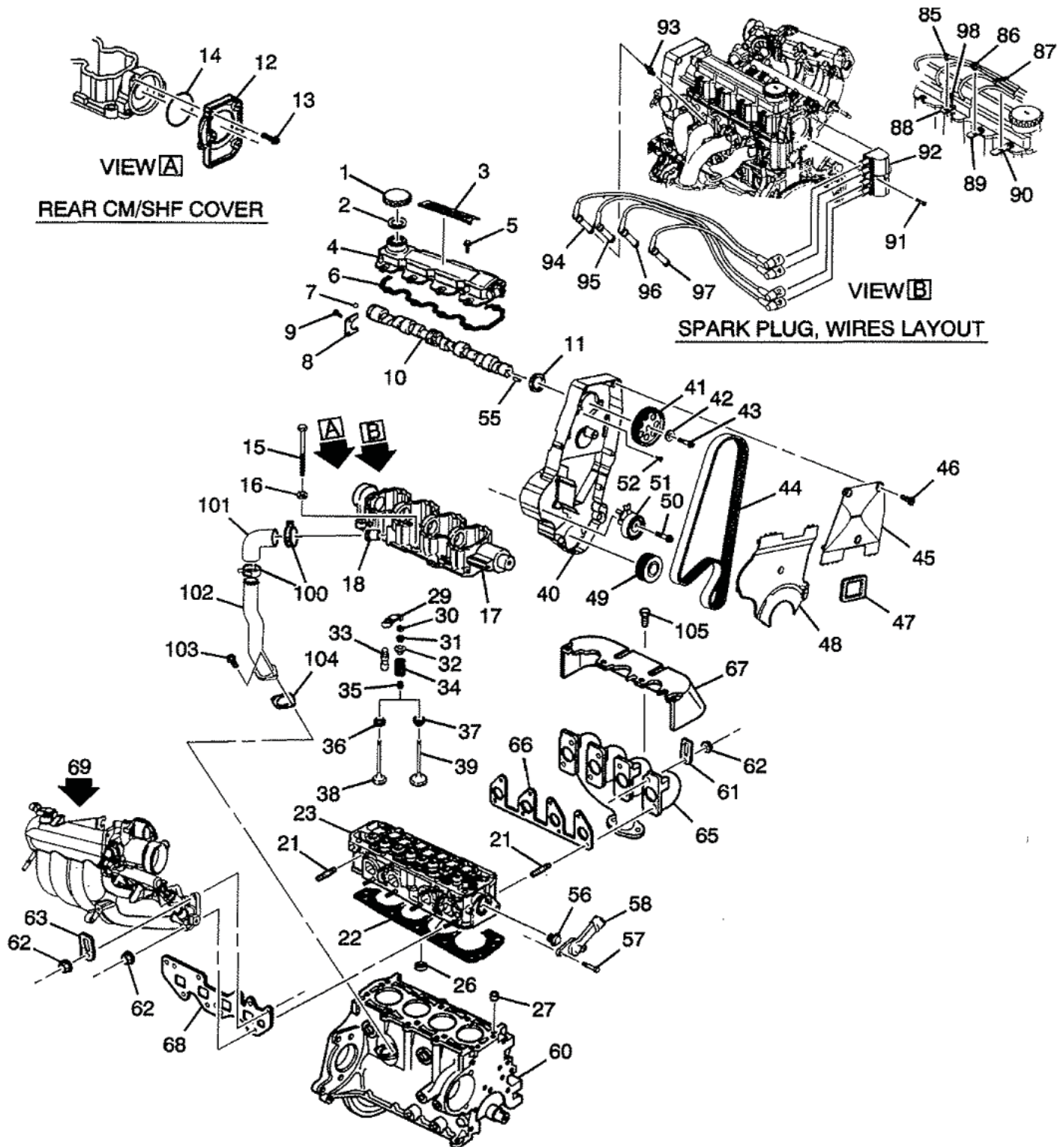


ENGINE GM 1.6L - ENGINE COMPONENT BREAKDOWN ILLUSTRATION 2 (CONTINUED)



FUEL TANK - DIESEL			
ITEM	PART NO.	REQ'D	DESCRIPTION
37	3338704	8	SEAT, VALVE ROCKER ARM VALVE
	3338705	8	SEAT. VALVE ROCKER ARM VALVE (CUP SHAPE 19X29X7)
38	3342379	4	VALVE, EXHAUST
39	3342380	1	VALVE, INTAKE
40	3343656	1	COVER, TIMING BELT FRONT
41	3342382	1	SPROCKET, CAMSHAFT
42	3338706	1	WASHER, CAMSHAFT SPROCKET
43	3338707	1	BOLL, CAMSHAFT SPROCKET
44	3342385	1	BELT, TIMING (111 TEETH)
45	3342389	1	COVER, TIMING BELT FRONT
46	3338708	6	BOLT, ENG FRONT COVER
48	3342386	1	COVER, TIMING BELT FRONT
49	3343650	1	SPROCKET, CRANKSHAFT
50	3338709	1	BOLL, CAMSHAFT SPROCKET
51	3338710	1	TENSIONER, TIMING BELT
52	3338711	4	BOLT, TIMING BELT REAR COVER
55	3338712	2	PIN, CAMSHAFT HOUSING LOCK
56	3338713	1	THERMOSTAT {INCLS: 58}
57	3338714	2	BOLT, GENERATOR FRONT BRACKET
58	N/A	-	PART OF ITEM 56
60	3338716	1	ENGINE
62	3338717	8	NUT, INTAKE MANIFOLD
65	3343657	1	MANIFOLD, EXHAUST
66	3343652	1	GASKET, EXHAUST MANIFOLD
67	3343864	1	SHEILD, EXHAUST MANIFOLD
68	3343654	1	GASKET, INTAKET MANIFOLD
69	3343645	1	INTAKE MANIFOLD
85	3338720	1	RETAINER, SPARK PLUG WIRE HARNESS
86	3338721	1	RETAINER, SPARK PLUG WIRE HARNESS
87	3338722	1	RETAINER, SPARK PLUG WIRE HARNESS
88	3338723	1	BRACKET, SPARK PLUG WIRE RET
89	3338724	1	BRACKET, SPARK PLUG WIRE RET
90	3338725	1	BRACKET, SPARK PLUG WIRE RET

ENGINE GM 1.6L - ENGINE COMPONENT BREAKDOWN ILLUSTRATION 2 (CONTINUED)





**ENGINE GM 1.6L - ENGINE COMPONENT BREAKDOWN ILLUSTRATION 2 (CONTINUED)**

ITEM	PART NO.	REQ'D	DESCRIPTION
91	3338726	3	BOLT, IGNITION COIL BRACKET
92	3342408	1	COIL, IGNITION
93	3342409	4	SPARK PLUG
94	3342410	1	WIRE, SPARK PLUG CYLINDER #1 (435MM)
95	3342411	1	WIRE, SPARK PLUG CYLINDER #2 (365MM)
96	3342412	1	WIRE, SPARK PLUG CYLINDER #3 (275MM)
97	3342413	1	WIRE, SPARK PLUG CYLINDER #4 (185MM)
98	3338727	3	BOLT, IGNITION COIL BRACKET
100	3338728	2	CLAMP, PEV HOSE
101	3338729	1	HOSE, PEV
102	3338730	1	TUBE, PCV
103	3338731	2	BOLT, PEV TUBE
104	3338732	1	GASKET, PEV TUBE

## WARRANTY

Revision G  
Effective September 2010  
PowerBoss Made Simple Industrial Limited Warranty

Minuteman International owner of PowerBoss warrants to the original purchaser/user that the product is free from defects in workmanship and materials under normal use. PowerBoss will, at its option, repair or replace without charge, parts that fail under normal use and service when operated and maintained in accordance with the applicable operation and instruction manuals. All warranty claims must be submitted through and approved by factory authorized repair stations.

This warranty does not apply to normal wear, or to items whose life is dependent on their use and care. Parts not manufactured by PowerBoss are covered by and subject to the warranties and/or guarantees of their manufacturers. Please contact Minuteman International for procedures in warranty claims against these manufacturers.

**Special warning to purchaser** -- Use of replacement parts not manufactured by PowerBoss or its designated licensees, will void all warranties expressed or implied. A potential health hazard exists without original equipment replacement.

All warranted items become the sole property of Minuteman International or PowerBoss or its original manufacturer, whichever the case may be.

PowerBoss disclaims any implied warranty, including the warranty of merchantability and the warranty of fitness for a particular purpose. PowerBoss assumes no responsibility for any special, incidental or consequential damages.

This limited warranty is applicable only in the U.S.A. and Canada, and is extended only to the original user/purchaser of this product. Customers outside the U.S.A. and Canada should contact their local distributor for export warranty policies. PowerBoss is not responsible for costs or repairs performed by persons other than those specifically authorized by PowerBoss. This warranty does not apply to damage from transportation, alterations by unauthorized persons, misuse or abuse of the equipment, use of non-compatible chemicals, or damage to property, or loss of income due to malfunctions of the product. If a difficulty develops with this machine, you should contact the dealer from whom it was purchased.

This warranty gives you specific legal rights, and you may have other rights, which vary from state to state. Some states do not allow the exclusion or limitation of special, incidental or consequential damages, or limitations on how long an implied warranty lasts, so the above exclusions and limitations may not apply to you.

	Travel*	Labor	Parts	Engine	Extended Warranty	Costs
<b>Walk behinds</b>						
Battery sweepers	Ninety days	One year	One year	N/A	2 years Parts + Labor (or 2000 Hours	2%
IC sweepers	Ninety days	One year	One year	Through manufacturer	2 years Parts + Labor (or 2000 Hours	2%
Battery scrubbers	Ninety days	Two years	Three years	N/A	3 Years Parts + Labor (or 3000 Hours)	2%
<b>Riders</b>						
Battery scrubbers	Ninety days	Two years	Three years/2000 hrs	N/A	3 Years Parts + Labor (or 3000 Hours)	2%
IC sweeper/scrubbers	Ninety days	Six months	Two years/2000 hrs	Two years/3000 hrs**	2 years Parts + Labor (or 2000 Hours	3%
IC sweepers	Ninety days	Six months	Four years/3000 hrs	Five years/3000 hrs**	4 Years Parts + 2 Years Labor (or 4000 Hours)	3%
<b>Exceptions</b>						
Apex series sweeper	Ninety days	One year	One year/1000 hrs	One year/1000 hrs**	2 years Parts + Labor (or 2000 Hours)	3%
6X sweeper	Ninety days	Six months	Two years/2000 hrs	Two years/2000 hours**	2 years Parts + Labor (or 2000 Hours)	3%
<b>Other Products</b>						
QRE-3001A	Ninety days	Six months	Two years/2000 hrs	Two years/3000 hours**	2 years Parts + Labor (or 2000 Hours)	3%

**Tank Bladders** Eight years/ no additional labor  
**Polyethylene plastic tanks** Ten years/ no additional labor  
**Batteries** 0-3 months full replacement, 4-12 prorated credit  
**Chargers** One-year replacement  
**Replacement parts** Ninety days

\*Two-hour cap

\*\*Through engine manufacturer. See section 3 of warranty manual for engine warranty exceptions

\*\*\* Based upon dealer's certification status

Extended Warranty MUST be signed up within 30 days of delivery to End User (Dealer has 1Year from Receiving Machine to Sign up extended Warranty)

Extended Warranty Cost is based on Invoice Price multiplied by the Percentage listed in the Extended Warranty Column

*All above labor and travel reimbursed at 65 or 75% of the published shop rate.*

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***“The Power of Clean”***

**PowerBoss Is A Full Line Manufacturer Of Sweepers and Scrubbers For Industrial Facilities.**

PowerBoss, Inc 175 Anderson Street P.O. Box 1227- Aberdeen North Carolina 28315

Phone: 800-982-7141 - Fax: 1-800-277-7141 Local: 910-944-2105 Fax: 910-944-7409 e-mail: [techsupport@powerboss.com](mailto:techsupport@powerboss.com)

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